TRANSCAT®

WIND TURBINE TOOLS · CALIBRATION SERVICES

Leading Supplier to the Wind Energy Industry

Asset Management System

Tool Procurement   **Calibration & Repair**

800-779-5289 • Transcat.com

Accredited Calibration

Maintain Quality Standards with our Full Service Calibration Capabilities.

- 17 ISO/IEC 17025 accredited laboratories located throughout the US, Canada, Puerto Rico

- ASQ-certified calibration technicians assure a consistent level of service and quality

- Transcat has one of the industry's broadest ranges of calibration capabilities:

Torque	*Temperature*
Pressure/Vacuum	*Mass/Weights*
Electrical	*Flow*
Dimensional	*and more!*

- Documented, externally audited and internally monitored Quality Management Systems exceed ISO/IEC 17025 requirements
- Transcat's proprietary CalTrak Online Asset Management System offers 24/7 access to calibration certificates, automatic recalibration alerts and secure storage of documents and data

NVLAP
NVLAP LAB CODE 200730-0

Repair Services

Our expertly trained technicians provide guaranteed quality service.

You can trust Transcat as:

- Your first and only stop for increased efficiency
- Fast service to add convenience
- Flat rate pricing on popular instruments for easy budgeting

Transcat is also the:

- Only US Stahlwille Factory Authorized Repair and Calibration Center
- Only US Megger Authorized Repair and Calibration Center

FACTORY AUTHORIZED
STAHLWILLE
Repair and Calibration Center

TRANSCAT
Megger
Authorized Repair and Calibration Center

Online Tool Management

Improve your Tool Tracking through our Proprietary Asset Management System, CalTrak®.

- Inventory Management

- Tool Recall System

- Identify Out of Tolerance Tools

- ISO 17025 accreditation, and ILAC traceability ensures global acceptance of documentation

- View, export and print datasheets, certificates and asset listings

- Access tool information from anywhere, 24/7

- And more...

Tool Procurement

Transcat is Your Complete Source for all your Wind Turbine Tool Needs.

Torque Wrenches	Chisels / Prybars	Eye Protection
Multimeters	Electric Power Tools	Screwdrivers Sets
Hydraulic Tools	Extension Cords	Sockets
Pressure Gauges	Files & File Sets	Blade Socks
Process Tools	Gloves	Heating Blankets
DLRO's™	Fall Protection	and more....
TTR's™	Hammers	
PPE	Measuring Tools	

Megger

W WRIGHT TOOL

STAHLWILLE

PLARAD® Torque & Tension Systems

FLUKE

Expanded List on Page 102

TRANSCAT®

PHONE: **800-779-5289**   FAX: **800-395-0543**   **TRANSCAT.COM**

Electromechanical Torque Wrench No. 730D

Service and series production MANOSKOP – measures, cuts out and documents the tightening torques read.

● ●

The 730D electromechanical torque wrench is currently the only one worldwide which combines the principle of a clicking torque wrench with the benefits of an electronic model. Once the preset torque level for a joint has been reached, it <u>cuts out electronically</u> and notifies the user through a definite jerk and a loud click.

The user thus has the same feeling as if it were a mechanical torque wrench. The torque applied is shown on the display and can be stored for documentation and evaluation purposes and transferred via a USB interface to a PC. The additional "indicating" mode makes this a universally applicable tool.

<u>At a glance:</u>
- Clicking and indicating electromechanical torque wrench
- Tactile and acoustic trigger signals
- Stores up to 7,500 bolt tightening actions
- Units of measurement: N m, ft.lb, in.lb
- Deviation of indication ± 2 % with certificate
- Rapid setting using the convenient keypad and large display
- Different tolerance limits can be set for each joint

- Visual red and green signals in the display confirm the status of the joint
- The automatic keypad lock prevents inadvertent changes
- Additional security for presets (function mode, trigger or preset value, unit of measurement, tolerance, save, deviating extension) using PIN code
- Display also works for anticlockwise torque
- Angle-controlled measurement without a reference arm using a supplementary module
- Overload protection by means of acoustic and visual signals

- Automatic compensation to achieve correct tightening torque even if a changed extension is entered
- Automatic notification of the next calibration date
- Fully automated calibration using perfectControl calibrating unit No 7794-2
- With a mount for interchangeable sockets and inserts and QuickRelease safety lock
- The torque wrench exceeds the requirements of DIN EN ISO 6789.

The No 730D Service and series production torque wrench

QuickRelease safety lock

Measure, cut out and record

When the preset torque is reached, the torque wrench cuts out and indicates this fact to the user via a definite tactile and audible signal. The tightening torques are stored. The data can be transferred to a PC for evaluation and documentation.

Easy-to-read display

Dual stop signal

with tactile and acoustic cut-out signals.

2-component handle

has ergonomically designed, green softer layers and is resistant to oils, grease, fuels, brake fluids and Skydrol.

Power supply

Two 1.5 V AA batteries

Data output

via a USB interface.

Rapid setting

The convenient keypad enables the torque wrench to be quickly and easily set.

A World First!

Tightening angle
Simply attach the Angle Module No 7395-1 and connect the cable to the interface to carry out angle controlled tightening.

STAHLWILLE® Manoskop 730D/20

With the No. 730N Mechanical Torque Wrench

Rapid, accurate, safe work methods thanks to innovative technology. This enhanced version of the highly acclaimed 730 torque wrench, available under the 730N tag, is the logical continuation of a successful product so that the user benefits even more from its advanced features.

The setting mechanism in the 730N is based on a completely new design concept. At the core of this technology is the new "QuickSelect" rapid-action adjuster. The required torque value is set quickly and accurately using the knob on the end of the handle. To set the required value, simply pull out the knob and turn it to the correct setting. During this action, the clear-view double scale with its colour-differentiated N m and ft.lb/in.lb scales remains clearly visible at all times. Located right beside the knob is the ring scale which is used for fine tuning the measuring range. Once the required value has been set, the knob is simply pressed back in to lock it, which prevents the setting being inadvertently changed.

At a glance:
- Very quick, accurate one-handed setting
- Safe setting mechanism
- Easily readable 2-colour double scales in N m and ft.lb
- Double stop signals
- For clockwise and anticlockwise use
- Square drives with QuickRelease safety locks
- The measuring element is only under load while force is being applied
- Simple adjustment does not require disassembly
- Sturdy housing with wear-resistant, durable mechanism, protected from dirt inside the housing
- 2-component handle, resistant to various aggressive fluids
- Deviation of indication ± 3%
- Complies fully with DIN EN ISO 6789
- Traceable to national standards

No need for manual reset to zero

thanks to the tried-and-tested wear-free triggering cam system.

QR **QuickRelease safety lock**

Firm locking and rapid change of insert tools thanks to the QuickRelease safety lock.

Simple adjustment

The measuring mechanism can be quickly and easily adjusted from outside the tool using an Allen key inserted through the holes in the rating plate. It is not necessary to dismantle the torque wrench, which saves time.

Easily readable double scale

The colour differentiation between the N m and ft.lb scales simplifies fine setting.

Variable drive

The square drive enables a broad range of tightening tools to be used to match virtually any application. STAHLWILLE offers a full range of suitable insert tools for many applications.

Ring scale

Fine setting for the black measuring range on the double scale.

QuickSelect **Rapid setting**

Rapid, accurate, safe setting action: pull out the knob, turn it to the required reading with just a few revolutions and push it in again to lock it.

STAHLWILLE sets of socket spanners and inserts provide guaranteed safety and efficiency.

The professionals in industry and the trades are under pressure to work quickly, accurately and economically. Which is why they make heavy demands on their tools. Due to the numerous technical innovations incorporated in them, STAHLWILLE ratchets and sockets make a valuable contribution to the prevention of both mistakes and injuries.

By using ratchets, adaptors and inserts made by STAHLWILLE, professional tradesmen are quite simply "making sure". It does not matter whether it is a full set of tools or individual components – users can be sure they will get top-of-the-range quality every time. This is guaranteed by adherence to the closest tolerances during production and stringently applied quality assurance measures in accordance with DIN EN ISO 9001.

The legendary reliability and precision of these tools is enhanced by a large number of user-friendly features.

- **Non-slip, ergonomically manufactured 2-component handles facilitate strain-free working.**
- **Slim-design sockets enable access to awkward places.**
- **The QuickRelease system ensures full control over the joint between the ratchet, the adaptors and the sockets.**
- **NEW: sculpted chemical-resistant cut-outs in special PE foam inlays prevent tools rattling and sliding around.**

Set No 45/14/5iQR
in sturdy plastic case

1. *Ergonomically designed 2-component handle made of impact-resistant, skydrol resistant plastic.*

2. *All metal parts are made of high-grade steel (Chrome Alloy Steel, chrome plated).*

3. *Firm seating and yet easy release of sockets and adaptors.*

4. *Wear parts can be easily replaced using sets of spares for sockets.*

5. *Separate pawl to switch from clockwise to anticlockwise.*

Safety advantage 1

STAHLWILLE QuickRelease system

The problem:
imagine what happens if a tool falls into an inaccessible place during repair or overhaul work.

The consequences:
arduous, costly search and recovery, possibly involving disassembly of an aeroengine or machine.

The solution:
the safety lock built into the QuickRelease system prevents damage to workpieces and guarantees secure, rapid connection of all individual components to form a single combined unit. Nothing can get lost because it is not possible to inadvertently release a tool. To release a tool, it is first necessary to press the release button deliberately. Even if you have oily or greasy hands, attaching and separating the individual components is so simple it noticeably smoothes your workflows.

Safety advantage 2 **AS -drive**

STAHLWILLE AS Drive

The problem:
removing heavily corroded screws requires the application of considerable force. The socket slips off the head of the screw.
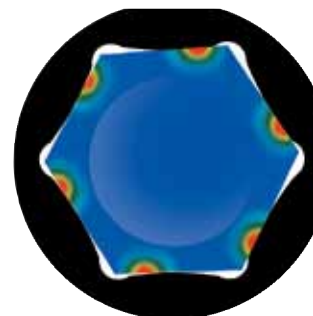
The consequences:
uncontrolled movements cause injuries and damage to both the workpiece and the tools.

The solution:
STAHLWILLE sockets are equipped with the AS Drive* profile. This permits high transmission of forces to the lands of nuts and bolts without damaging them.The risk of injury is minimised and the corners of the screw heads and nuts are no longer damaged.

*AS Drive = Anti-Slip Drive

The tolerances on the jaw sizes and square drives of these cold-extruded sockets are as close as if they had been broached. This prevents them slipping off the heads. The consequences: minimum wear on both screws and tools.

Safety advantage 3 **HPQ**

STAHLWILLE HPQ inserts

The problem:
although there is hardly enough room to move, you still have to apply considerable torque to loosen a stubborn screw.

The consequences:
many of the sockets available are useless simply because their wall thickness makes them impracticable in awkward places.

The solution:
STAHLWILLE HPQ* sockets are manufactured from selected tough steel alloys. These sockets will not slip off the head of the screw, nor will they stretch when subjected to heavy loads. Their extremely thin walls and unbelievably high load capacity are simply exemplary. HPQ sockets are free of cadmium and are therefore suitable for use on titanium alloy parts and titanium fasteners as used e.g. in the aerospace industry, where safety is a crucial factor. They meet these aerospace standards: E DIN EN 3709, E DIN EN 3710, SAE AS 954-E, S.B.A.C. AS 40605/40606, MS-33787, MIL-W-8982.

*HPQ = High Performance Quality

Some sets of STAHLWILLE socket spanners are supplied in sturdy plastic cases.
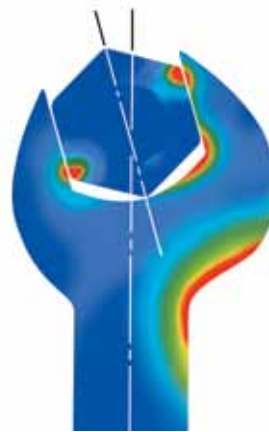
STAHLWILLE spanners

Strong, extremely tough and durable.

Conventional spanners

- When force is applied to a spanner, the greatest force acts on the joint between the jaw and the shaft. Standard-quality open-jaw spanners do not take this fact into consideration. In the context of normal hard work, this can lead to the tool breaking, causing considerable personal injury.

STAHLWILLE spanners

- To reduce the danger of breakage, we add more material where the greatest loads are to be found and take it away from the places that are not under such stress. In this way, we are able to manufacture extremely sturdy, slim and light tools which also facilitate working in confined spaces due to their compact designs.

Load zones in standard-quality spanners
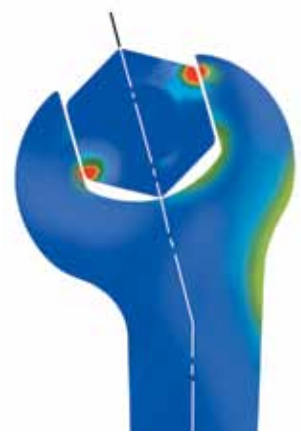
Load zones in spanners by STAHLWILLE

Extremely hard-wearing. Unusually durable.

- High-grade special steels, whose constitution has been carefully matched to the intended application, are drop forged.
- In a continuous furnace they are then hardened in a way that prevents scale build-up and skin decarburisation. This prevents the damaging softened skin effect and ensures the tool retains its full strength.

Open-jaw spanners in oil

- Quenching is in oil. This prevents stresses and deformation. The positive effect is that the tolerances in the vicinity of the jaws are very close, efficiently pre- venting the spanner slipping off the head or jamming in daily use.
- STAHLWILLE's Quality Assurance System applies defined checks to guarantee reliable, uniform levels of quality in spanners.

Concentrated force

- STAHLWILLE spanners have been designed in such a way that they can be subjected to greater loads than the screws you tighten or loosen with them.
- Intelligent material distribution puts the steel in places most subject to loads and this, in conjunction with higher grades of steel, makes it possible to produce far thinner rings than usual. As a result, the end user can take full advantage of STAHLWILLE quality spanners even in awkward spaces.

Light but easy to handle

- The double-T profile typical of STAHLWILLE spanners considerably increases the shafts' resistance to bending.

- The reduction in material used in the central section leads to a noticeable weight-saving. At the same time, the large contact surfaces ensure the best possible grip.
- STAHLWILLE's rounded finish gives the smooth finishing touches to the tool surface making it skin-friendly and easy to hold. End users cannot injure themselves on any sharp edges or corners.
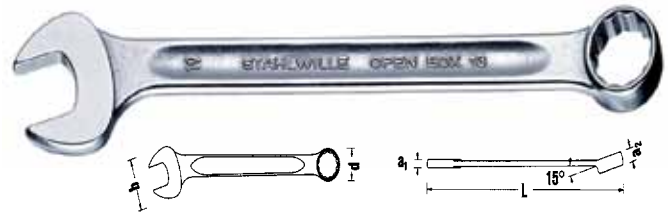

Absolutely resistant to bending thanks to the double-T profile

Stahlwille 13 Combination Spanners OPEN-BOX

- **DIN 3113 form A/ISO 7738 form A (metric sizes)**
- **Chrome Alloy Steel**
- **Chrome Plated**

Ordering Information	
Description	**Order #**
Stahlwille 40084141 - 41mm Combination Wrench	40084141
Stahlwille 40084646 - 46mm Combination Wrench	40084646
Stahlwille 40085050 - 50mm Combination Wrench	40085050
Stahlwille 40085555 - 55mm Combination Wrench	40085555
Stahlwille 40086060 - 60mm Combination Wrench	40086060

Stahlwille 7707 W Electronic Torque Tester for Torque Wrenches

Compact workshop-based torque tester for easy adaptation by replacement of the transducers.

Electronic workshop torque tester for torque wrenches, consisting of:

- **Transducer (Registered Design)**
- **Holder and Spiral Cable**
- **Display Unit (Registered Design)**
- **Tripod for Display Unit (with 1.5M Cable)**
- **Mains Adaptor (230V) or Direct Connection to 12V in-Car Supply is Possible**
- **Square Drive Adaptor**
- **Kit for Attaching the Unit to a Workbench or Wall in a Horizontal or Vertical Testing Position**
- **Supplied in Sturdy Plastic Case**
- **Can be Upgraded to Data Logging via the Torkmaster Software and Cable**

FACTORY AUTHORIZED
Repair and Calibration Center

Ordering Information	
Description	**Order #**
Sensotork Digital Torque Tester 0.4-20NM	96521080
Sensotork Digital Torque Tester 2-100NM	96521072
Sensotork Digital Torque Tester 4-200NM	96521084
Sensotork Digital Torque Tester 8-400NM	96521084

Ordering Information	
Description	**Order #**
Sensotork Digital Torque Tester 25-1100NM	96521082
Torque Transducer: 25-1100Nm	52100028
Torkmaster Software Suite and USB Adapter	96583626
Transcat Accredited Calibration	Call

Stahlwille MANOSKOP• Torque Wrenches

Doesn't cause damage if force is applied after 'click' sound.

730N Mechanical

- **Quick Release Safety Lock**
- **Variable Drive**
- **QuickSelect Rapid Setting**
- **Easily Readable Double Scale**
- **Ring Scale for Fine Setting**
- **Simple Adjustment using an Allen Key**
- **No Need for Manual Reset to Zero**

Ordering Information

Description	Order #
730N, 6-50N-m, 9x12mm Mechanical Torque Wrench	50181005
730N, 20-100 N-m, 9x12mm Mechanical Torque Wrench	50181010
730N, 25-130 N-m, 14x18mm Mechanical Torque Wrench	50181012
730N, 40-200N-m, 14x18mm Mechanical Torque Wrench	50181020
730N, 80-400N-m, 14x18mm Mechanical Torque Wrench	50181040
730N, 130-650N-m, 14x18mm Mechanical Torque Wrench	50181065
Transcat Accredited Calibration	Call

730D Electromechanical

- **Firm Locking and Rapid Change of any Insert Tools**
- **Measure, Cut Out and Record**
- **Dual Stop Signal**
- **Data output to a PC via USB**
- **Rapid Setting Using Handle Keypad**

Ordering Information

Description	Order #
730D, 10-100N-m, 9x12mm Electromechanical Torque Wrench	96501710
730D, 20-200N-m, 14x18mm Electromechanical Torque Wrench	96501720
730D, 40-400N-m, 14x18mm Electromechanical Torque Wrench	96501740
730D, 65-650N-m, 14x18mm Electromechanical Torque Wrench	96501765
Transcat Accredited Calibration	Call

730 Mechanical

- **Tool Carrier for Interchangeable Insert Tools with Cut-Out**
- **Quick Release Safety Lock Dual Signal (Size 2-65)**
- **Dual Scale Nm/ft.lb and N m/inch.lb (Size 5-80)**
- **Long Term Accuracy and Facility to Accept Insert/Shell Tools**

Ordering Information

Description	Order #
730/2, 4-20N-m, 9x12mm Basic Torque Wrench	50180002
730/4, 8-40N-m, 9x12mm Basic Torque Wrench	50180004
730/5, 6-50N-m, 9x12mm Basic Torque Wrench	50180005
730/10, 20-100N-m, 9x12mm Basic Torque Wrench	50180010
730/12, 25-130N-m, 14x18mm Basic Torque Wrench	50180012
730/10, 40-200N-m, 14x18mm Basic Torque Wrench	50180020
730/65, 130-650N-m, 14x18mm Basic Torque Wrench	50180065
730/80, 160-800N-m, 24.5x28mm Basic Torque Wrench	50180080
Transcat Accredited Calibration	Call

Stahlwille Standard MANOSKOP• 721 Torque Wrenches

Torque wrenches with dual "Stop" signal and cut-out, rapid adjustment, dual scale Nm/ft.lb and long service life. Robust steel tube protects all working parts.

- **Any Force Applied to the Tool After the "Click" or Applied in the Opposite Direction to the Current Function – E.G. Forcible Loosening of a Jammed Screw – Does Not Act on the Trigger Mechanism and Cannot Cause Damage to it**

- **Recalibration without Dismantling Using Torque Tester No. 7707 W or Calibration System No. 7706**

- **Deviation of Indication ± 4% with Certificate**
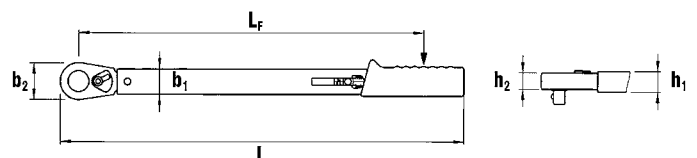
Ordering Information

Description	Order #
6-50N-m, Mechanical Torque Wrench	50200005
30-150N-m, Mechanical Torque Wrench	50200015
60-300N-m, Mechanical Torque Wrench	50200030

FACTORY AUTHORIZED
STAHLWILLE
Repair and Calibration Center

Stahlwille 735 Series Ratchet Insert Tools

- Reversible
- 60 Teeth
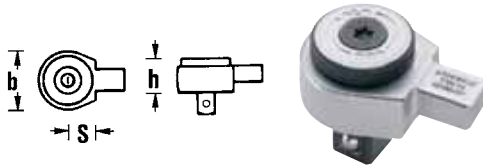
Ordering Information

| Description	Order #
Stahlwille 735/5, 3/8" 9x12mm Ratchet Insert Tool	58250005
Stahlwille 735/10, 1/2" 9x12mm Ratchet Insert Tool	58250010
Stahlwille 735/40, 3/4" 14x18mm Ratchet Insert Tool	58250040
Stahlwille 735/80, 3/4" 24.5x28mm Ratchet Insert Tool	58250080

Stahlwille Series 7370
Torque Wrench Adapters

◀ 58290040

◀ 58290080

Internal Square	Outer Square	b:	h:	S:	Weight	Order #
9x12mm	14x18mm	31mm	26mm	30.5mm	114g	58290010
14x18mm	9x12mm	28mm	21mm	21.5mm	115g	58290040

Outer Square	Outer Square	b:	h:	S:	Weight	Order #
14x18mm	24.5x28mm	28mm	24mm	—	251g	58290041
24.5x28mm	14x18mm	36mm	26mm	70mm	281g	58290080

Stahlwille 732 Series Ring Insert Tools
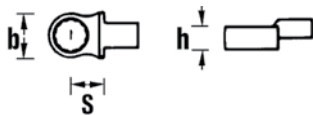
14x18mm				
Size	b:	h:	S:	Order #
13mm	22.5	11	25	58224013
14mm	22.5	11	25	58224014
15mm	24	11	25	58224015
16mm	25.5	12	25	58224016
17mm	27	12	25	58224017
18mm	29	13	25	58224018
19mm	30.5	13	25	58224019
21mm	33	15	25	58224021
22mm	34.5	15	25	58224022

14x18mm				
Size	b:	h:	S:	Order #
24mm	37.5	15	25	58224024
27mm	42.5	17	25	58224027
28mm	45.5	19	25	58224028
30mm	46	19	25	58224030
32mm	47.5	19	25	58224032
34mm	52	19	28	58224034
36mm	54	19	28	58224036
41mm	60	20	30	58224041

9x12mm				
Size	b:	h:	S:	Order #
7mm	13	8	17.5	58221007
8mm	14.2	8	17.5	58221008
10mm	17.2	9	17.5	58221010
11mm	18.5	9	17.5	58221011
12mm	20.5	11	17.5	58221012
13mm	21.5	11	17.5	58221013
14mm	22.5	11	17.5	58221014
15mm	24.5	12	17.5	58221015
16mm	26	12	17.5	58221016
17mm	27	13	17.5	58221017
18mm	28	13	17.5	58221018
19mm	30.5	13	17.5	58221019
21mm	33	15	17.5	58221021
22mm	34.5	15	17.5	58221022

Stahlwille 731 Series Open Ended Insert Tools
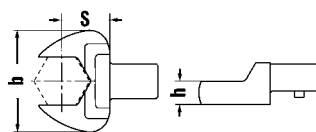
14x18mm				
Size	b:	h:	S:	Order #
13mm	30	7	25	58214013
14mm	35	8	25	58214014
15mm	35	8	25	58214015
16mm	38	9	25	58214016
17mm	38	9	25	58214017
18mm	42	10	25	58214018
19mm	42	10	25	58214019
21mm	50	11	25	58214021
22mm	50	11	25	58214022
24mm	53	12	25	58214024

14x18mm				
Size	b:	h:	S:	Order #
25mm	53	12	30	58214025
27mm	60	13	30	58214027
30mm	66	14	32.5	58214030
32mm	66	14	32.5	58214032
34mm	66	14	32.5	58214034
36mm	74	15	32.5	58214036
38mm	74	15	32.5	58214038
41mm	82	15	36.5	58214041

| 9x12mm				
Size	b:	h:	S:	Order #
7mm	22	5	17.5	58211007
8mm	22	5	17.5	58211008
9mm	26	5.5	17.5	58211009
10mm	26	5.5	17.5	58211010
11mm	26	5.5	17.5	58211011
12mm	30	7	17.5	58211012
13mm	30	7	17.5	58211013
14mm	35	8	17.5	58211014
15mm	35	8	17.5	58211015
16mm	38	8.5	17.5	58211016
17mm	38	8.5	17.5	58211017
18mm	42	9	20	58211018
19mm	42	9	20	58211019

Stahlwille Standard MANOSKOP® 721Nf

Torque Wrenches with Ratchet

Torque wrenches with dual "STOP" signal and cut-out, micrometer type adjustment, dual scale Nm/ft.lb and long service life. Robust steel tube and light alloy "U"-profile protect all working parts.

- **Push Through Square Drive for Right and Left Hand Tightening**

- **Easily Adjustable without Disassembly Using Tester No. 7707 W or Calibration System No. 7706**

- **Deviation of Indication ± 4%. With Certificate.**

◀ **721Nf/80**

◀ **721Nf/100**

Ordering Information

Description	Order #
160–800N-m, Torque Wrench with Ratchet	50200081
200–1000N-m, Torque Wrench with Ratchet	96502001
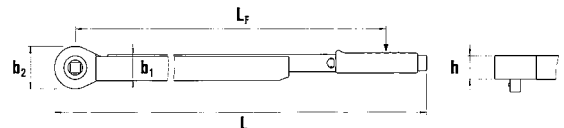
Stahlwille Socket Sets

50/54/26/6 - Socket Set 1/2"

Contents:

> **18 Sockets with Bi-Hexagon**
> No. 50: Sizes 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34mm
> **8 INHEX Sockets**
> No. 54: Sizes 4; 5; 6; 7; 8; 10; 12; 14mm
> **1 Ratchet No. 512**
> **3 Extensions; No. 509/3 (75mm)**
> No. 509/5 (130mm), No. 509/10 (255mm)
> **1 Universal Joint No. 510**
> **1 T-handle No. 506**

Ordering Information

Description	Order #
32 Piece Socket Set, 1/2"	96030439

55/10/6 - Socket Set 3/4"

Contents:

> **10 Sockets with Hexagon**
> No. 55: Sizes 22; 24; 27; 30; 32; 34; 36; 38; 41; 46; 50mm
> **1 Ratchet No. 552**
> **2 Extensions No. 559/8 (200mm), No. 559/16 (400mm)**
> **1 Flexible Head No. 554**
> **1 Bar Handle No. 558**
> **1 Sliding Head for T-handle No. 556**

Ordering Information

Description	Order #
16 Piece Socket Set, 3/4"	96050104

88TX - Socket Set TORX®1/4"

Contents:

> **10 Sockets with Hexagon**
> No. 40: Sizes 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13mm
> **6 Sockets for External TORX®**
> Screws No. 40TX: Sizes E4; E5; E6; E7; E8; E10
> **5 INHEX Sockets**
> No. 44K: Sizes 3; 4; 5; 6; 8mm
> **9 Screwdriver Sockets for Internal TORX® Screws**
> No. 44KTX: Sizes T*; T10; T15; T20; T25; T27; T30; T40
> **1 Ratchet No. 415**
> **2 Extensions No. 405/2 (54mm), No. 405/6 (150mm)**
> **1 Universal Joint No. 407**
> **1 Drive Handle No. 400**
> **1 T-handle No. 404**

Ordering Information

Description	Order #
36 Piece TORX Socket Set, 1/4"	98818801

Stahlwille Insert Tool Carrier (Breaker Bar)

- **With Tool Carrier to Receive Insert Tools (without Torque Function)**

Ordering Information	
Description	**Order #**
1820 Insert Tool Carrier (Breaker Bar), 9x12mm	18200001
1821 Insert Tool Carrier (Breaker Bar), 14x18mm	18210001

Stahlwille Pliers

6533 - Mechanics Snipe Nose Pliers

- **Half Round, Long Tapering Serrated Jaws**
- **Chrome Plated**
- **Dip-Coated with Sure-Grip Surface**

Ordering Information	
Description	**Order #**
Mechanics Snipe Nose Pliers	65335160
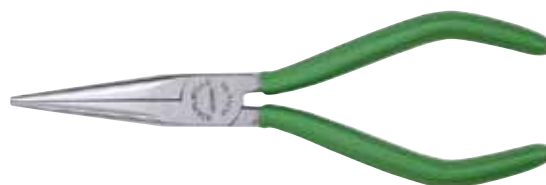
6623 - Automatic Wire Stripping Pliers

- **For Wires from 0.5 to 5mm**
- **Self Adjusting**
- **Cutter Hole for Cutting Wire or Standard Wires up to 5mm**
- **Chrome Plated**
- **Multi-Component Handles with Soft Layers**

Ordering Information	
Description	**Order #**
Automatic Wire Stripping Pliers	66235160

Transcat Complete Tool Kits. . .
Save Time, Money & Hassle

Technicians Tool Kit

Other Kits Available

Service and Maintenance Kit | Blade Repair Kit | Site Kit | Commissioning Kit

Torque Wrenches
Multimeters
Hand Tools
Process Tools
DLROs®
TTRs™
Chisels / Prybars
Electric Power Tools
Extension Cords

Insulation Testers
Files & File Sets
PPE
Gloves
Measuring Tools
Eye Protection
Fall Protection
See page 51 for more details.

WRIGHT TOOL   STAHLWILLE   Megger.   FLUKE.

For more information: *Call 800.779.5289 or visit Transcat.com/windenergy*

Stahlwille Inhex Sockets

Size	Weight	L1:	L2:	d:	Order #
1/4", 5mm	20g	47.63	42.86	34.93	01050005
1/2", 5mm	78g	120	82	22.7	03151205
1/2", 17mm	186g	60	20	27.5	03050017
3/4", 14mm	1.89g	66.68	66.68	49.23	05050014
3/4", 17mm	2.22g	69.85	71.45	49.23	05050017
3/4", 19mm	2.50g	66.68	69.85	61.93	05050019
3/4", 22mm	3.49g	80.90	82.55	61.93	05050022

Ordering Information
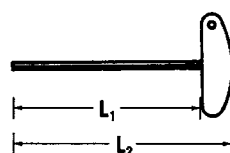
05050019

01050005
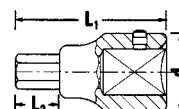
Stahlwille 4mm T-Handle Allen Wrench

- For Socket Head Screws
- Chrome Vanadium
- Matt Chrome Plated
- Black Tipped

Ordering Information

Description	Order #
Stahlwille 10768 - 4mm T-handle Allen Wrench	43250040

Stahlwille 4697 DRALL+ Screwdriver Set

- Set of 8 DRALL+ screwdrivers
- Contents: Flat Head 4620:
  Size 1 (0.6 x 3.5 x 75mm)
  Size 2 (0.8 x 4.0 x 100mm)
- Flat Head 4622:
  Size 1 (1.0 x 5.5 x 100mm)
  Size 2 (1.2 x 6.5 x 125mm)
  Size 3 (1.2 x 8.0 x 150mm)
- Phillips Head 4730: Size 1
- Phillips Head 4732: Size 2, Size 3

Ordering Information

Description	Order #
Stahlwille 4697 Set of 8 DRALL+ Screwdrivers	96469710

Stahlwille 4694
DRALL+ TORX® Screwdriver Set

- Set of 9 DRALL+ Screwdrivers for TORX® Screws
- Contents: 4650: T8, T9, T10, T15, T20, T25, T27, T30, T40

Ordering Information

Description	Order #
Stahlwille 4694 Set of 9 DRALL+ TORX® Screwdrivers	96469410

Stahlwille Insulated 1000V Screwdriver Set DRALL

- Set of 6 Screwdrivers
- 1000V Safety Insulated
- Phillips: Size 1 & Size 2
- Flathead:
  Size 1 (0.4x2.5x75mm)
  Size 3 (0.6x3.5x100mm)
  Size 5 (1x5.5x125mm)
  Size 6 (1.2x6.5x150mm)

Ordering Information

Description	Order #
1000V Safety Screwdriver Set (6 pc) Slotted and Phillips	96469510

Stahlwille Socket Sets

50/54/26/6 - Socket Set 1/2"
Contents:

18 Sockets with Bi-Hexagon
No. 50: Sizes 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34mm
8 INHEX Sockets
No. 54: Sizes 4; 5; 6; 7; 8; 10; 12; 14mm
1 Ratchet No. 512
3 Extensions No. 509/3 (75mm), No. 509/5 (130mm), No. 509/10 (255mm)
1 Universal Joint No. 510
T-handle No. 506

Ordering Information	
Description	Order #
32 Piece Socket Set, 1/2"	96030439

55/10/6 - Socket Set 3/4"
Contents:

10 Sockets with Hexagon
No. 55: Sizes 22; 24; 27; 30; 32; 34; 36; 38; 41; 46; 50mm
1 Ratchet No. 552
2 Extensions No. 559/8 (200mm), No. 559/16 (400mm)
1 Flexible Head No. 554
1 Bar Handle No. 558
1 Sliding Head for T-handle No. 556

Ordering Information	
Description	Order #
16 Piece Socket Set, 3/4"	96050104

Stahlwille 14/10 KT
Combination Wrench Set OPEN BOX, Long

- Set Contains 10 Wrenches:
  8mm, 10mm, 11mm, 12mm,
  13mm, 14mm, 16mm, 17mm,
  18mm, 19mm

- Packed in Plastic with
  Transparent Cover
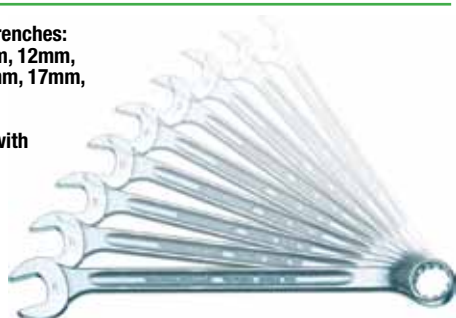
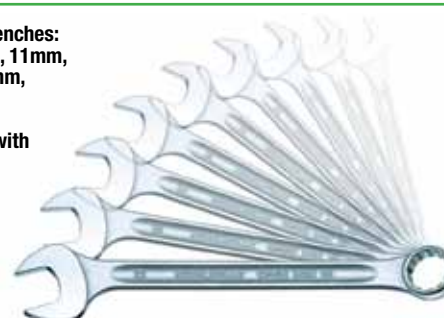| Ordering Information	
Description	Order #
Stahlwille 14/10 KT Combination Wrench Set, Long	96401007

Stahlwille 13/10 KT
Combination Wrench Set OPEN BOX

- Set Contains 9 Wrenches:
  8mm, 9mm, 10mm, 11mm,
  12mm, 13mm, 14mm,
  17mm, 19mm

- Packed in Carton with
  Clear View Cover

Ordering Information	
Description	Order #
Stahlwille 13/10 KT Combination Wrench Set	96400808

WRIGHTGrip™

More Bite From WRIGHT

The new design provides 50% more strength and longer service life than traditional open-end wrenches, with no increase in the tool's outside dimensions. When compared with other high-quality wrenches, the improvement in strength is as high as 80%.

The advanced opening profile places more metal in high-stress areas to stiffen the jaws, increase tool strength and reduce permanent jaw spread for better reliability. In addition, the carefully placed, precision-broached serrations keep the wrench seated on the fastener to increase torque and reduce slippage.

WRIGHTGrip™ is a design evolution for open-end wrenches similar to what the Wright Drive™ was for sockets and box wrenches. The design utilizes advanced CAD/CAM technologies to improve the wrench-to-fastener contact areas. As with the Wright Drive, this increased contact improves torque load capabilities wherever WRIGHTGrip wrenches are used.

More Torque, Longer Life, Higher Strength.

WRIGHTGrip Is Now A Standard Feature
WRIGHTGrip is now offered on the open end of combination wrenches in sizes up to 1-1/4". Like all Wright tools, Wright wrenches are manufactured in the U.S.A. with a quality process that exceeds ISO 9001/2000. They are precision-manufactured from WRIGHTALLOY™ steel for added strength and durability. The new wrenches continue to feature Wright Tool's comfortable, reliable grip, as well as the brand's outstanding professional appearance.

Yet Another Wright Innovation
The improvements to the Wright line of wrenches are the result of the manufacturer's relentless pursuit of quality, innovative design, and extensive research and development. The higher torques required in many applications demand tools with higher strength and performance. Wright Tool has long been known for incorporating such advanced technologies to improve the company's entire line of tools.
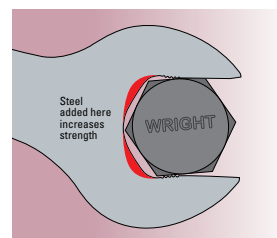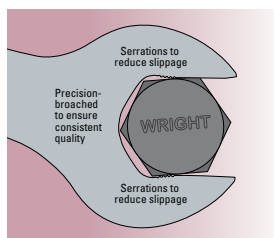
Wright Tools Set 660 Metric Socket Set

- **14 Pieces – 6 Pt. Deep Metric**
- **Made in U.S.A.**
- **Hot-forged using Wright Alloy Steel**
- **Industrial Black-oxide Finish**

- **Patented "Wright Drive" configuration for increased Surface Contact with Fasteners "Wright Drive" — More Strength....More Torque.... Longer Tool Wear.**

- **Includes:**

69-19mm 19mm	69-26mm 26mm	69-35mm 35mm
69-21mm 21mm	69-27mm 27mm	69-36mm 36mm
69-22mm 22mm	69-30mm 30mm	69-38mm 38mm
69-23mm 23mm	69-32mm 32mm	69-41mm 41mm
69-24mm 24mm	69-33mm 33mm	Cardboard Box

Ordering Information

Description	Order #
3/4" Dr., 14 Pc. 6 Pt. Deep Metric Impact Socket Set	076799006608

Wright Tools Set 759 Metric Combination Wrenches

- **18 Pieces – Combination**
- **Made in U.S.A.**
- **Hot-forged using Wright Alloy Steel**
- **Satin-Chrome Industrial Finish**

- **Patented "Wright Drive" configuration for increased surface contact with fasteners. "Wright Drive" — More Strength....More Torque.... Longer Tool Wear.**

Ordering Information

Description	Order #
18 Pc. Metric Combination Wrench Set 7mm-24mm	758-Wright

- **Includes:**

11-07mm 7mm	11-11mm 11mm	11-15mm 15mm	11-19mm 19mm	11-23mm 23mm
11-08mm 8mm	11-12mm 12mm	11-16mm 16mm	11-20mm 20mm	11-24mm 24mm
11-09mm 9mm	11-13mm 13mm	11-17mm 17mm	11-21mm 21mm	758-Roll Denim Tool Roll
11-10mm 10mm	11-14mm 14mm	11-18mm 18mm	11-22mm 22mm	

Wright Tools

Torque Multiplier

- Made in U.S.A.
- Low Input Torque
- Needle Bearings for High Efficiency
- Input Torque Holding Ratchet - Holds multiplier in place during torquing

- 1/2" Sq. F - 1" Sq. M
- Output Capacity 2,200 Ft. Lbs.

Order #: 9S392B

- 1/2" Sq. F - 1" Sq. M
- Output Capacity 3,200 Ft. Lbs.

Order #: 9S393A

Double Pawl Ratchet

- Made in U.S.A.
- Double Pawl design resulting in only 4½ arc
- Strongest ratchets available on the market
- Long handle (15" overall length) for increased leverage
- High Polish Chrome Finish
- 15" (Contour Grip)

Order #: 4494

6" Adjustable Wrench

- Made in U.S.A.
- Max Capacity 15/16"
- Chrome Finish

Order #: 9AC06

10" Adjustable Wrench

- Made in U.S.A.
- Max Capacity 1-5/16"
- Chrome Finish

Order #: 9AC10

15" Adjustable Wrench

- Made in U.S.A.
- Max Capacity 1-3/4"
- Chrome Finish

Order #: 9AC15

24" Adjustable Wrench

- Made in U.S.A.
- Max Capacity 2-17/32"
- Chrome Finish

Order #: 9AC24

Wright Tools Set 466 Metric Socket Set

- **16 Pieces – Pt. Standard Metric**
- **Made in U.S.A.**
- **Hot-forged using Wright Alloy Steel**
- **Industrial Black-oxide Finish**
- **Patented "Wright Drive" configuration for increased surface contact with fasteners. "Wright Drive" — More Strength....More Torque.... Longer Tool Wear.**

- **Includes:**

48-10mm 10mm	48-15mm 15mm	48-20mm 20mm	48-27mm 27mm
48-11mm 11mm	48-16mm 16mm	48-21mm 21mm	2-W110 Rails
48-12mm 12mm	48-17mm 17mm	48-22mm 22mm	W4 16 Clips
48-13mm 13mm	48-18mm 18mm	48-23mm 23mm	
48-14mm 14mm	48-19mm 19mm	48-24mm 24mm	

Ordering Information

Description	Order #
1/2" Dr., 16 Pc. Impact Metric Socket Socket Set 10mm - 27mm, 6 Pt. Std.	466 Wright

Wright Tools Set 467 Impact Socket Set

- **16 Pieces – Pt. Deep Metric**
- **Made in U.S.A.**
- **Hot-forged using Wright Alloy Steel**
- **Industrial Black-oxide Finish**
- **Patented "Wright Drive" configuration for increased Surface Contact with Fasteners "Wright Drive" — More Strength....More Torque.... Longer Tool Wear**

- **Includes:**

49-10mm 10mm	49-15mm 15mm	49-20mm 20mm	49-27mm 27mm
49-11mm 11mm	49-16mm 16mm	49-21mm 21mm	2-W110 Rails
49-12mm 12mm	49-17mm 17mm	49-22mm 22mm	W4 16 Clips
49-13mm 13mm	49-18mm 18mm	49-23mm 23mm	
49-14mm 14mm	49-19mm 19mm	49-24mm 24mm	

Ordering Information

Description	Order #
1/2" Dr., 16 Pc. Impact Metric Socket Set 10mm - 27mm, 6 Pt. Deep	076799004673

Wright Tools Set 472 Metric Socket Set

- **22 Pieces – Pt. Standard Metric**
- **Made in U.S.A.**
- **Patented "Wright Drive" configuration for increased surface contact with fasteners. "Wright Drive"— More Strength...More Torque...Longer Tool Wear**
- **High Polish Chrome Finish**
- **Includes Highest-quality Wright ratchet**

- **Includes:**

41-09mm 9mm	41-21mm 21mm
41-10mm 10mm	41-22mm 22mm
41-11mm 11mm	41-23mm 23mm
41-12mm 12mm	41-24mm 24mm
41-13mm 13mm	41-25mm 25mm
41-14mm 14mm	41-26mm 26mm
41-15mm 15mm	41-30mm 30mm
41-16mm 16mm	41-32mm 32mm
41-17mm 17mm	4426 Ratchet
41-18mm 18mm	4405 5" Extension
41-19mm 19mm	W418 Metal Box
41-20mm 20mm	

Ordering Information

Description	Order #
1/2" Dr., 22 Pc. 12 Pt. Std. Metric Socket Set	472-Wright

Wright Tools Set 650 Custom Metric Socket Set

- **31 Pieces – 12 Pt. Standard**
- **Made in U.S.A.**
- **Patented "Wright Drive" configuration for increased surface contact with fasteners. "Wright Drive"— More Strength...More Torque...Longer Tool Wear**
- **High Polish Chrome Finish**
- **Includes highest-quality Wright Ratchet**

- **Includes:**

61-19mm 19mm	61-36mm 36mm	6435 3/4" Drive Flex Handle
61-21mm 21mm	61-38mm 38mm	6443 Sliding T
61-22mm 22mm	61-41mm 41mm	6475 Universal
61-23mm 23mm	61-42mm 42mm	237 Metal Box
61-24mm 24mm	61-46mm 46mm	
61-25mm 25mm	61-50mm 50mm	
61-26mm 26mm	61-54mm 54mm	
61-27mm 27mm	61-55mm 55mm	
61-28mm 28mm	61-58mm 58mm	
61-29mm 29mm	61-60mm 60mm	
61-30mm 30mm	6400 3/4" Drive Ratchet	
61-31mm 31mm	6403 3-1/2" Extension	
61-32mm 32mm	6408 8" Extension	
61-35mm 35mm	6416 16" Extension	

Ordering Information

Description	Order #
3/4" Dr., 31 Pc. Std. Metric Socket Set w/Box	650WT

Wright Tools 41 Series Metric Sockets

Ordering Information		
Description	Size	Order #
9mm 1/2" Dr. 12 Pt. Std. Metric Socket	09mm	41-09MM
10mm 1/2" Dr. 12 Pt. Std. Metric Socket	10mm	41-10MM
11mm 1/2" Dr. 12 Pt. Std. Metric Socket	11mm	41-11MM
12mm 1/2" Dr. 12 Pt. Std. Metric Socket	12mm	41-12MM
13mm 1/2" Dr. 12 Pt. Std. Metric Socket	13mm	41-13MM
14mm 1/2" Dr. 12 Pt. Std. Metric Socket	14mm	41-14MM
15mm 1/2" Dr. 12 Pt. Std. Metric Socket	15mm	41-15MM
16mm 1/2" Dr. 12 Pt. Std. Metric Socket	16mm	41-16MM
17mm 1/2" Dr. 12 Pt. Std. Metric Socket	17mm	41-17MM
18mm 1/2" Dr. 12 Pt. Std. Metric Socket	18mm	41-18MM
19mm 1/2" Dr. 12 Pt. Std. Metric Socket	19mm	41-19MM
20mm 1/2" Dr. 12 Pt. Std. Metric Socket	20mm	41-20MM

Ordering Information		
Description	Size	Order #
21mm 1/2" Dr. 12 Pt. Std. Metric Socket	21mm	41-21MM
22mm 1/2" Dr. 12 Pt. Std. Metric Socket	22mm	41-22MM
23mm 1/2" Dr. 12 Pt. Std. Metric Socket	23mm	41-23MM
24mm 1/2" Dr. 12 Pt. Std. Metric Socket	24mm	41-24MM
25mm 1/2" Dr. 12 Pt. Std. Metric Socket	25mm	41-25MM
26mm 1/2" Dr. 12 Pt. Std. Metric Socket	26mm	41-26MM
27mm 1/2" Dr. 12 Pt. Std. Metric Socket	27mm	41-27MM
28mm 1/2" Dr. 12 Pt. Std. Metric Socket	28mm	41-28MM
29mm 1/2" Dr. 12 Pt. Std. Metric Socket	29mm	41-29MM
30mm 1/2" Dr. 12 Pt. Std. Metric Socket	30mm	41-30MM
32mm 1/2" Dr. 12 Pt. Std. Metric Socket	32mm	41-32MM
36mm 1/2" Dr. 12 Pt. Std. Metric Socket	36mm	41-36MM

41-15MM

Wright Tools 61 Series Metric Sockets

Ordering Information		
Description	Size	Order #
19mm 3/4" Dr. 12 Pt. Std. Metric Socket	19mm	61-19MM
20mm 3/4" Dr. 12 Pt. Std. Metric Socket	20mm	61-20MM
21mm 3/4" Dr. 12 Pt. Std. Metric Socket	21mm	61-21MM
22mm 3/4" Dr. 12 Pt. Std. Metric Socket	22mm	61-22MM
23mm 3/4" Dr. 12 Pt. Std. Metric Socket	23mm	61-23MM
24mm 3/4" Dr. 12 Pt. Std. Metric Socket	24mm	61-24MM
25mm 3/4" Dr. 12 Pt. Std. Metric Socket	25mm	61-25MM
26mm 3/4" Dr. 12 Pt. Std. Metric Socket	26mm	61-26MM
27mm 3/4" Dr. 12 Pt. Std. Metric Socket	27mm	61-27MM
28mm 3/4" Dr. 12 Pt. Std. Metric Socket	28mm	61-28MM
29mm 3/4" Dr. 12 Pt. Std. Metric Socket	29mm	61-29MM
30mm 3/4" Dr. 12 Pt. Std. Metric Socket	30mm	61-30MM
31mm 3/4" Dr. 12 Pt. Std. Metric Socket	31mm	61-31MM

Ordering Information		
Description	Size	Order #
32mm 3/4" Dr. 12 Pt. Std. Metric Socket	32mm	61-32MM
33mm 3/4" Dr. 12 Pt. Std. Metric Socket	33mm	61-33MM
34mm 3/4" Dr. 12 Pt. Std. Metric Socket	34mm	61-34MM
35mm 3/4" Dr. 12 Pt. Std. Metric Socket	35mm	61-35MM
36mm 3/4" Dr. 12 Pt. Std. Metric Socket	36mm	61-36MM
38mm 3/4" Dr. 12 Pt. Std. Metric Socket	38mm	61-38MM
40mm 3/4" Dr. 12 Pt. Std. Metric Socket	40mm	61-40MM
41mm 3/4" Dr. 12 Pt. Std. Metric Socket	41mm	61-41MM
42mm 3/4" Dr. 12 Pt. Std. Metric Socket	42mm	61-42MM
43mm 3/4" Dr. 12 Pt. Std. Metric Socket	43mm	61-43MM
46mm 3/4" Dr. 12 Pt. Std. Metric Socket	46mm	61-46MM
50mm 3/4" Dr. 12 Pt. Std. Metric Socket	50mm	61-50MM
54mm 3/4" Dr. 12 Pt. Std. Metric Socket	54mm	61-54MM

61-28MM

Ordering Information		
Description	Size	Order #
55mm 3/4" Dr. 12 Pt. Std. Metric Socket	55mm	61-55MM
58mm 3/4" Dr. 12 Pt. Std. Metric Socket	58mm	61-58MM
60mm 3/4" Dr. 12 Pt. Std. Metric Socket	60mm	61-60MM

Wright Tools Set 415 Socket Set

- 13 Pieces – Pt. Standard
- Made in U.S.A.
- Hot-forged using Wright Alloy Steel
- Industrial Black-oxide Finish

- Patented "Wright Drive" Configuration for Increased Surface Contact with Fasteners "Wright Drive" — More Strength....More Torque.... Longer Tool Wear

- Includes:

4814 7/16"	4818 9/16"	4822 11/16"	4826 13/16"
4830 15/16"	4834 1-1/16"	4840 1-1/4"	W4 13 Clips
4816 1/2"	4820 5/8"	4824 3/4"	4828 7/8"
4832 1"	4836 1-1/8"	2-W010 Rails	

Ordering Information	
Description	Order #
1/2" Dr., 13 Pc. Impact Socket Set 7/16" - 1-1/4"	415

WRIGHT DRIVE…More Strength. More Torque. Longer Tool Wear.

12-pt. Wright Drive tools give you ten times more fastener contact!
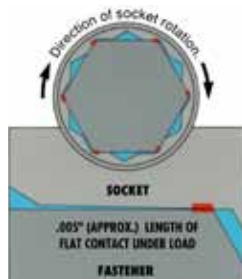
Conventional.
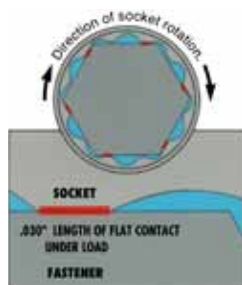
First Generation.

Wright Drive.

The Wright Drive® 12-point design distributes contact stress more effectively than any other wrench system available. It spreads stress evenly over a larger contact area and away from the fastener corners. The result is up to ten times more tool-to-fastener contact area than conventional wrenches. This design improves fastener torque load while decreasing rounding and distortion of the fastener. To better understand the advantages of the 12-point design, one must look at the designs that led to the introduction of the Wright Drive.

Conventional designs put all of the load too close to the fastener corner. Extra fasteners were used to share the load. This was fine when over-engineered products required low-torque fasteners. But industry moved away from over-engineering. As the demand for high-torque fasteners increased, so did the demand for a new generation of high-torque tools. Today, every fastener should be fully tightened. Installation is more demanding and removal is more difficult.

Approximate .005" length of flat contact at engagement under load with 5/8" conventional design and SAE Grade 5 fastener.

Early First Generation designs concentrated on reducing the rounding of fastener corners by moving the stress zone farther away from the corner. However, these modifications– known as First Generation AS954 tools–result in a reduction of leverage. While First Generation designs reduce the tendency to round fastener corners, the relatively limited flat contact area still tends to mark, indent and distort fasteners and fittings made of soft steel and brass.

Maximum .030" length of flat contact at engagement under load with 5/8" first generation AS954 design and SAE Grade 5 fastener.

The Wright Drive was created and patented by the Wright Tool Company, taking full advantage of advanced CAD/CAM technologies. It actually improves the torque load capabilities of every fastener, whether it's a soft stove bolt or a hardened aerospace fastener.

- Torque loads are moved away from fastener corners to prevent rounding.
- Stress is distributed over a much larger area of the fastener.
- Leverage is improved, eliminating fastener rounding and increasing tool strength.
- Tool-to-fastener contact area is ten times greater than with a conventional design, and almost twice that of a First Generation AS954 tool.

Maximum .057" length of flat contact at engagement under load with 5/8" Wright Drive design and SAE Grade 5 fastener.

Conventional. This Finite Element Analysis display shows that ordinary sockets create extremely high stress loads at the fastener corner and at the socket's inside corners. The illustration shows that this stress is concentrated in a very small area.

First Generation. While stress is relieved on the fastener corner, there is no significant improvement in relieving concentrated stress on the inside surfaces of the socket.

Wright Drive. The Wright Drive distributes stress evenly across the socket and fastener faces, away from the fastener corners, and over a larger flat contact area than ordinary sockets allow. There is a significant improvement in distribution of stress at the socket's inside surface.

6-pt. Wright Drive tools have greater strength & torque, plus better gripping power!

The patented 6-point Wright Drive is, in effect, a careful blending of Wright's 12-point design with the heavy-duty gripping characteristics of a traditional 6-point wrench opening. It offers many of the same advantages of the 12-point design, including greater strength, more torque and reduced rounding of the fastener corners. Patent No. 5,284,073.

The main advantage of the 6-pt. design is its gripping power. The Wright Drive's minor circle diameter, which is a measure of the ability to grip an undersized fastener, is exactly the same as a traditional 6-point opening. The smaller the diameter, the better the grip on undersized fasteners and fasteners with badly rounded corners.

CONVENTIONAL
SCALE: 10x

CONVENTIONAL
CORNER LOADING

6-POINT WRIGHT DRIVE
SCALE: 10x

6-POINT WRIGHT DRIVE
MORE SURFACE CONTACT
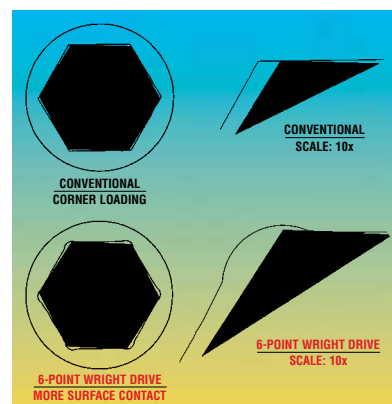
U. S. Patent No. 4,882,957. German Patent No. 42 08 548.
Fully certified for 12-point aerospace fasteners under AS954 specifications.

Wright Tools
Micro-Adjustable "Click Type" Metal Handle Torque Wrenches

- Rugged, Durable and Easy to Operate

- Accurate, ± 4% Clockwise, ± 6% Counterclockwise at 20% of the Scale

- All Parts Made from Alloy Tool Steel for Long Life Accuracy. Accuracy Meets or Exceeds all Applicable Government Specifications

- Exposed Scale

- Positive Lock with Spring Loaded Pull Down Lock Ring Made of Super Rugged Knurled Metal for Industrial Use and Cannot be Jarred into Unlock Position

- All Wrenches Meet or Exceed ANSI B107.14M or GGG-S-686, Whichever Applies

- Ratchet Head Models are 24 Tooth Industrial Grade Ratchets Designed for Industrial Use

- Feature a Push Button Socket "Quick Release" Mechanism (Except 6448, 8447 and 8448)

- All Wrenches Feature English Scales Primary and Newton Meter Secondary

- Micrometer "Clicker" Torque Wrenches Feature a Distinct Breaking Action (Noise Greatest at Upper Part of the Scale) when the Set Torque is Reached

- All Wrenches Come in Fitted Blow Mold Plastic Storage Boxes, Except the 8447 and 8448 Which Come with a Metal Box

- All Wrenches Include a "Certificate Of Calibration"

▲ 4476, 4479, 4477, 4478, 6448

▲ 3447, 3477, 3479

▲ 2477, 3478

▲ 8447

▲ 8448

▲ 8449

Ordering Information								
Drive Size	Torque Range English	Incr.	Torque Range Metric	Incr. (Nm)	Head Style	Length Inches	Wt. Lbs.	Order #
Inch Pound								
1/4"	20-150 in. lb.	1	2.8-16.4	.1	Ratchet	10.15"	.90	2477
3/8"	30-200 in. lb.	1	3.9-22.0	.1	Ratchet	10.15"	.85	3478
3/8"	150-1000 in. lb.	5	19.8-110.2	.6	Ratchet	15.75"	2.5	3479
1/2"	700-1600 in. lb.	10	84.4-175.2	1.2	Ratchet	18"	3.0	4476
1/2"	300-2500 in. lb.	10	39.6-276.8	1.2	Ratchet	18"	3.0	4479
Foot Pound								
3/8"	5-75 ft. lb.	.5	10.2-98.3	.7	Ratchet	15.5"	2.5	3447
3/8"	10-100 ft. lb.	.5	16.9-132.2	.7	Ratchet	15.5"	2.5	3477
1/2"	20-150 ft. lb.	1	34-197	1.5	Ratchet	19"	3.15	4477
1/2"	30-250 ft. lb.	1	47-332	1.5	Ratchet	24.4"	3.15	4478
3/4"	100-600 ft. lb.	5	169-779	7	Ratchet	42"	8.95	6448
1"	200-1000 ft. lb.	5	305-1320	7	Ratchet	70"	40.0	8447
1"	200-1000 ft. lb.	5	305-1320	7	Fixed Head	69"	24.5	8448

Cougar Pro Reversible Ratcheting Combination Wrench Sets

Professional Quality Ratcheting Combination Wrenches that improve efficiency of the job at hand.

- **2 Sets Available - Inch and Metric**
- **Meet or Exceed ASME B107.66 Standards for Reversible-Ratchet Combination Wrenches**
- **72 Teeth, 5-Degree Arc Swing**
- **Small Head Profile**
- **High Torque Capacity**
- **High-Alloy Steel**
- **Full-Polish, Mirror Chrome-Plated Finish**
- **12-Point Box End with Off-Corner Torque Loading for Greater Strength**
- **Ergonomic Handle**
- **Box-End Bend of 15 Degrees Hand Clearance**
- **Open-End Offset 15 Degrees with Full Engagement**
- **Depth for Fastener**
- **Chamfered and Radiused, All Edges Smooth**
- **Stamped Size Easily Identifiable on Both Sides of Wrench**
- **Length Engineered for Proper Leverage for Each Opening Size**
- **Provided in a Carry Rack**

▲ **M8MRCW**

Ordering Information

Description	Order #
8-Piece SAE Reversible-Ratcheting Combination Wrench Set (Inch) Includes 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4"	E8SRCW
8-Piece Metric Reversible-Ratcheting Combination Wrench Set (Metric) Includes 8mm, 10mm, 12mm, 13mm, 14mm, 15mm, 17mm, 19mm	M8MRCW

Mayhew

14 Piece Punch and Chisel Set

- Set contains:
  Center Punch : 3/8",
  Cold Chisel: 1/4", 3/8", 1/2", 5/8", 3/4"
  Line Up Punch: 1/8"
  Pin Punch: 3/32", 1/8", 5/32", 3/16", 1/4"
  Solid Punch: 1/8", 3/16"

Order #: 61044

Flexible Lighted Pick Up Tool

- Magnets on Both Ends Allow User to Hang from Above Work Area and to Pick Up Metal Objects
- Flexible Head for Reaching into Hard to Reach Areas
- Extends from 8" to 25" for Long Reach
- Uses Replacement Batteries MAY45054
- 3 LED Lights

Order #: 45048

3 Piece Heavy Duty Pry Bar Set

- Set contains: 25" Straight Pry Bar, 31" Curved Pry Bar and 36" Curved Pry Bar
- Heat Treated and Tempered Steel for Strength and Durability
- Available in Both Curved and Straight Blades

Order #: 61356
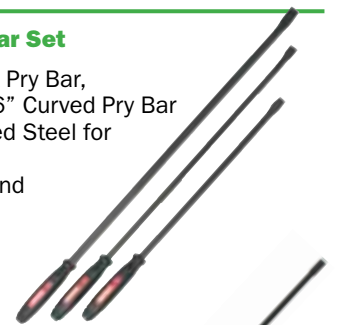
58" Pry Bar

- Heat Treated and Tempered Steel for Strength and Durability
- Available in Both Curved and Straight Blades

Order #: 40162
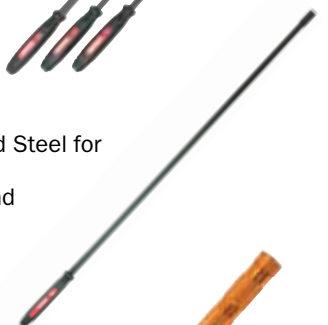
Lighted Inspection Mirror

- Bright LED Illumination with On/Off Switch
- Shatter Resistant Polycarbonite Mirror
- Maneuverable Mirror
- Telescopes to 29-1/2"

Order #: 45051

Wera Tools 8000 Zyklop Drive Ratchet

Combines five ratchet types in one, plus, it is a screwdriver.

- Zyklop Ratchets are Really Fast Movers. The Rotating Mass Design Combined with the Rotationally Symmetrical Kraftform Handle and the Spin-Sleeve Accelerates the Screw-Driving Process

- Reversible Ratchet with 72 Fine-Pitched Teeth has a Small Return Angle of only 5 Degrees. Clockwise or Counter-Clockwise

- The Ball Lock Holds the Sockets and Attachments Securely for Safe Working

- The Ratchet Head Pivots Freely and can be Released in any Position with the Slide Switch

- The Release can be Used at a 90 Degree Angle

- The Ratchet Head has an Ergonomic Design with Finer Recesses that Respond Perfectly to Your Hand and Fingers

- The Kraftform Handle is Designed to Fit Snugly in Your Hand Preventing Calluses and Blisters

- The Zyklop Ratchet can be Used as a Fine-Tooth Ratchet, Flex-Head Ratchet, Angle Ratchet, Quick-Release Ratchet, Power Ratchet

- Each Unit Includes: 1 Zyklop Ratchet

▲ 05003500002

▲ 05003550002

▲ 05003600002

Ordering Information

Description	Order #
8000 A Zyklop 1/4" Drive Ratchet	05003500002
8000 B Zyklop 3/8" Drive Ratchet	05003550002
8000 C Zyklop 1/2" Drive Ratchet	05003600002

Wera Tools 8100 Zyklop Drive Ratchet Set

Combines five ratchet types in one and you can even use it as a screwdriver.
Rubber feet keep the set secure on most surfaces.

- Zyklop Ratchets are Really Fast Movers. The Rotating Mass Design Combined with the Rotationally Symmetrical Kraftform Handle and the Spin-Sleeve Accelerates the Screw-Driving Process

- Reversible Ratchet with 72 Fine-Pitched Teeth has a Small Return Angle of only 5 Degrees. Clockwise or Counter-Clockwise

- The Ball Lock Holds the Sockets and Attachments Securely for Safe Working

- The Ratchet Head Pivots Freely and can be Released in any Position with the Slide Switch

- The Release can be Used at a 90 Degree Angle

- The Ratchet Head has an Ergonomic Design with Finer Recesses that Respond Perfectly to Your Hand and Fingers

- The Ratchet Head Pivots Freely and can be Released in any Position with the Slide Switch

- Laser Etched Parts List on the Lid gives you the Ability to Identify Missing Parts Quickly

- Each Unit Includes: 1 Zyklop Ratchet, 2 Zyklop "Flexible-Lock" Extensions (Short and Long), 1 Wobble Extension, 1 Sliding T-Handle, 1 Universal Joint, 1 Adaptor with Quick Release Chuck, Sockets*, Interchangeable Bits* and 1 Strong Metal Case,

Ordering Information

Description	Order #
8100 SB2 Zyklop 3/8" Drive Ratchet Set 43pc, Metric	05003594002
8100 SB4 Zyklop 3/8" Drive Ratchet Set 38pc, Imperial	05003596002
8100 SC2 Zyklop 1/2" Drive Ratchet Set 37pc, Metric	05003645002

▲ 05003594002

Wera Tools 8002 C Koloss 1/2" Drive Hammer Ratchet

The only Ratchet Drive that is also designed to function as a Hammer.

- 1/2" Drive Heavy Duty Ratchet
- 30 Tooth Double Pawl Ratchet Only Needs 6 Degrees Movement for Engagement
- Heavy Duty Belt Loop Pouch Included
- Dual Hammer Heads all Steel or Rubber Soft Sided

- Optional Extension or Cheater Bar
- Optional Centering Pin for Hole Alignment
- Fully Reversible Drive System
- Each Unit Includes: 1 Belt Pouch Holster, 1 1/2" Drive Koloss Hammer Ratchet, 1 Rubber Pad for Cushioned Blows

Ordering Information	
Description	Order #
8002 C Koloss 1/2" Driver Hammer Ratchet	05003692002

Wera Tools 8002 C Koloss
Locking Extension for Hammer Ratchet

13" Locking extension for the Koloss Hammer Ratchet with safety pin lock design feature.

- Locking Extension (Cheater Bar) Allows for Additional Torque
- Safety Pin Lock
- Ergonomic Soft Grip Handle Comfort in Many Climate Conditions
- Each Unit Includes: 1 Extension Handle

Ordering Information	
Description	Order #
8002 C Koloss Locking Extension for Hammer Ratchet	05003695002

Wera Tools BR 1/4" Universal Rapidaptor/Bitholder with 28 Bits and Durable Bit Holder

Your first choice when lack of space prevents the use of standard ratchets. Extremely small size: 1/2" X 3.25" OAL makes this one of the smallest ratchet available.

- 1/4" 60 Tooth Extra Strong Geared Ratchet
- Will Hold Both Insert and Power Bits
- Fine Tooth Gears for Extra Strong Torque Transfer
- Heavy Duty Storage Secure Storage Case with Belt Clip
- Each Unit Includes: 1 Mini Ratchet, 1 Rapidator Bit Holder, 1/4" Square Drive Adaptor, 27 Bits PH/SL/TX/HX/SQ

Ordering Information	
Description	Order #
BR 1/4" Universal Rapidaptor/Bitholder	05346293001

Wera Tools 334/6 Lasertip Screwdriver Set, 6pc + Rack

Designed for the professional user, Wera's multi-component ergonomic handle fits the shape of the hand for the ultimate in comfort and high speed torque.

- **The Kraftform Handle has Been Designed to fit Snugly in Your Hand and Prevents Blisters and Calluses**
- **The Handle Hard Zones Allow the Hand to Easily Glide During Hand Repositioning**

- **The Softer, Anti-Slip Zones Ensure Full Force Transfer Through the Grip**
- **For Slotted and Phillips Screws**
- **Each Unit Includes: 4 Slotted Screwdrivers, 2 Phillips Screwdrivers**

Ordering Information	
Description	**Order #**
334/6 Lasertip Screwdriver Set, 6pc + rack	05105650006

Wera Tools 160i/6 VDE Lasertip Screwdriver Set, 6pc + Rack

Designed for the professional user, Wera's multi-component ergonomic handle fits the shape of the hand for the ultimate in comfort and high speed torque.

- **Each Tool is Tested at 10,000 Volts in Accordance with DIN EN 60900 (IEC 60900:2004)**
- **Guaranteed Safe Working up to 1,000 Volts**
- **Impact Strength Tested at Minus 40 Centigrade for Safety Even Under Extreme Conditions**
- **Kraftform Handle is Designed to Fit Snugly in Your Hand to Prevent Blisters and Calluses**
- **For Slotted and Phillips Screws**

- **Laser Treatment Creates a Microrough Surface on the Tip of the Blade Biting the Edge of the Screw, Preventing Slipping and Scratches**
- **Handle Markings Include a Screw Symbol and the Size of the Tip to Help You Easily find the Right Screwdriver in the Workplace**
- **Each Unit Includes: 4 Slotted Screwdrivers, 2 Phillips Screwdrivers**

Ordering Information	
Description	**Order #**
160i /6 VDE Screwdriver set, 6 pc + rack	05006145006

Wera Tools 932/6 Chiseldriver 6pcs set + rack

Multifunction Chiseldriver tool can be used as a chisel strike using the integrated impact cap with a hammer to break loose stubborn fasteners.

- **With a Pound-Thru Hexagon Blade Made from High-Grade Material for Zero-Loss Transfer of High Forces when Struck with a Hammer. The Tough Viscous Tempered Material Prevents the Blade from Slitting or Breaking**
- **Extra Torque can be Transferred by Attaching an Open-Jawed or Ring Spanner to the Integrated Hexagon Bolster**
- **With an Integrated Impact Cap in Contact with the Blade, this Tool is Vibration Free**

- **The Handle Hard Zones Allow the Hand to Easily Glide During Hand Repositioning. The Softer, Anti-Slip Zones Ensure Full Force Transfer Through the Tip**
- **For Slotted and Phillips Screws**
- **Each Unit Includes: 4 Slotted Screwdrivers, 2 Phillips Screwdrivers**

Ordering Information	
Description	**Order #**
932/6 Chiseldriver 6pcs set + rack	05018282006

Wera Tools Kraftform Kompact 25
7 Pcs Bayoneting Screwdriver

7-1 Screwdriver is a necessity for every toolbox.

- The Wera Black Point Tip and a Refined Hardening Process Guarantee Long Service Life and Increased Corrosion Protection

- The Hand Support on the Easy-Tuning Cap and the Fast-Tuning Zone Below the Cap Accelerates the Screwdriving Process Making Time-Consuming Grip Adjustments Unnecessary

- Heavy Duty Bayoneting Screwdriver with Bits Stored in the Handle

- Each Unit Includes: 1 Screwdriver, 1 Cloth Belt Pouch, 1 Each PH1, PH2, PH3 and 3 Slotted

Ordering Information	
Description	**Order #**
Kraftform Kompact 25 7 Pcs Bayoneting Screwdriver	05051024002

Wera Tools Kraftform Kompact 62 Pouch Set
33 Pieces in Heavy Cloth Belt Pouch

Wera's Multi-component ergonomic Handle that includes our Rapidaptor quick change bit-holder that will hold inserts or power bits and makes for quick easy bit changes.

- The Specially Designed Kraftform Handle Fits Perfectly in the Palm to Help Prevent Hand Injuries

- The Cap and Fast-Tuning Zone Below the Cap Accelerates the Screwdriving Process Making Time-Consuming Grip Adjustments Unnecessary

- Each Unit Includes: 1 Ergo Screwdriver with Rapidaptor, 1 Heavy Cloth Belt Pouch, 32 3.5" Power Bits (Many Security Styles)

Ordering Information	
Description	**Order #**
Kraftform Kompact 62, 33 Pcs in Heavy Cloth Belt Pouch	05059297005

Milwaukee Tools M18 Cordless 1/2" High Torque Impact Wrench

Milwaukee 4-Pole Frameless Motor delivers industry leading torque in a compact size.

- Milwaukee® Designed Impact Mechanism: Delivers 450 Ft- Lbs of Torque

- Compact Size Light Weight: 8-7/8" Length and 6.7 Lbs

- Milwaukee® 4-Pole Frameless Motor: Delivers Maximum Run-Time

- 1/2" Anvil W/Pin Detent: Provides Maximum Socket Retention

Each Unit Includes: (1) Impact Wrench, (2) M18 XC Batteries, (1) M18 Charger, (1) Carrying Case

Ordering Information	
Description	**Order #**
M18 1/2" High Torque Impact Wrench	2662-22

Milwaukee Tools M12 Cordless Grease Gun Kit

Achieve more productivity with greater pressure, run-time, and versatility than the leading competitor.

- Delivers up to 8,000 PSI
- Delivers up to 7 Cartridges per Charge
- 5 Year Tool Warranty, 2 Year Battery Warranty
- 14 Oz. Cartridges or 16 Oz. Bulk Grease

Each Unit Includes: (1) Grease Gun, (1) M12 XC Battery, (1) M12 Charger, (1) Carrying Case

Ordering Information	
Description	**Order #**
M12 Cordless Grease Gun Kit	2446-21XC

Milwaukee Tools M18 Compact Hammer Drill Kit

Most compact, durable & fast Cordless 18V Hammer Drill on the market.

- Milwaukee® 4-Pole Frameless Motor: Delivers 550 in-lbs of Peak Torque, 0-450/0-1,700 RPM, & 29,000 BPM
- DPM - Digital Power Management: Overload Protection Prevents Damage to the Tool and Battery in Abusive Situations
- Compact & Ergonomic Design: 8-1/2" Length
- All Metal Gear Case: the Only Metal Gear Case in its Class
- All Metal 1/2" Single Sleeve Ratcheting Chuck: Provides Maximum Durability and Bit Retention
- 5 Year Tool Warranty, 3 Year Battery Warranty

Each Unit Includes: (1) Compact Hammer Drill, (2) M18 XC Batteries, (1) M18 Charger, (1) Carrying Case

Ordering Information	
Description	**Order #**
M18 Cordless Compact Hammer Drill Kit	2602-22

Milwaukee Tools M18 Cordless Impact Driver Kit

Milwaukee 4-Pole Frameless Motor delivers category leading 1,400 in/lbs. of torque.

- 18V XC High Capacity Lithium Ion Battery Delivers Longer Life and Run-Time
- ¼" Hex Quick Change Chuck Allows for Easy Bit Changes
- Milwaukee® Designed Impact Mechanism Provides Faster Application Speed
- Milwaukee® 4-Pole Frameless Motor Maximizes Tool Efficiency to Increase Run-Time
- Built in LED Light Illuminates Work Area
- Battery Fuel Gauge Displays Remaining Run-Time

Each Unit Includes: (1) Impact Driver, (2) M18 XC Batteries, (1) M18 Charger, (1) Carrying Case, (1) Belt Clip

Ordering Information	
Description	**Order #**
M18 Cordless Impact Driver Kit	2650-22

Nupla

10066

Extreme Power Drive

- **Safest Grip in the Industry**
- **Nupla Super Grip can be Used with Gloves Without Slipping**
- **Reduces Fatigue Caused by Strenuous Over-Squeezing of the Handle**
- **One Steel Face**
- **13.75" Handle Length**
- **5" Long Head**
- **Weight: 2 lbs**

Order #: 10066

21012

Ball Pein Classic Handle Specialty Hammer

- **Handle Material - Fiberglass**
- **Handle Length - 12 in**
- **Handle Type - Classic**
- **Head Weight - 12 oz**
- **Grip Style - H**

Order #: 21-012

10135

Strike Pro Power Drive

- **Comfortable Standard Grip Design**
- **Available in Regular C Size**
- **12" Handle Length**
- **5" Long Head**
- **Weight: 1.3 lbs**

Order #: 10-135

30040

Classic Brass Non Sparking Sledge Hammer

- **12" Handle Length**
- **Nupla Classic Handles Provide Safety and Durability for the Toughest Jobs**
- **Safest Grip in the Industry**
- **Nupla Super Grip can be Used with Gloves Without Slipping**
- **Reduces Fatigue Caused by Strenuous Over-Squeezing of the Handle**
- **Weight: 4 lbs**

Order #: 30040

Klein Tools Screwdriver Set 7 Pc Cushion Grip

Cushion Grip Handle allows for greater torque and comfort.

- **Special Heat Treated Shanks for Greater Durability**
- **Premium Chrome Plated Shank for Smooth Feel and Corrosion Resistance**
- **Meets or Exceeds Applicable ASME / ANSI Specifications**

Each Unit Includes: 7 pc set with pouch

Ordering Information	
Description	Order #
7 pc Cushion Grip Screwdriver Set	85076

Plarad MSX Series Hydraulic Torque Wrench

**Hydraulic Square Drive & Socket Torque Tool for multiple applications.
200Nm-65,000Nm torque capabilities.**

- **Up to 800 Bar Pressure Operation**
- **Up to 45,000Nm Torque Capability**
- **Square Drive & Socket Design for Multiple Applications**
- **¾" – 3½" Square Drive Adapters for Heavy Torque Requirements**
- **Spherical Drive System with Piston**
- **Comprehensive Range of Drive Adapters & Accessories**
- **Fine Spline Ratchet System-No Jamming, High Precision**
- **High Pressure Safety Cylinder**
- **Pressure Safety Relief Valve**
- **International Patented Technology**
- **Safety Handle Included**

Ordering Information		
Square Drive	Performance Range (Nm)	Order #
1" (3/4")	210 - 2,100	MX-EC 20TS
1"	450 - 4,500	MX-EC 45TS
1 1/2"	750 - 7,500	MX-EC 75TS
2 1/2"	4,000 - 40,000	MSX 400 TS
3 1/2"	6,500 - 65,000	MSX 650 TS

Call for other configurations.

Plarad FSX Series Hydraulic Slimline Torque Tool

**Hydraulic Slimline Torque Tool for applications with space constraints.
100Nm-45,000Nm torque capabilities.**

- **Up to 800 Bar Pressure Operation**
- **Up to 45,000 Nm Torque Capability**
- **Fine Spline Ratchet System-no Jamming, High Precision**
- **Low Profile Design for Multiple Applications**
- **Comprehensive Range of Drive Units & Matching Low Profile Cassettes**

- **Spherical Drive System with Piston**
- **High Pressure Safety Cylinder**
- **Pressure Safety Relief Valve**
- **Safety Handle Included**
- **International Patented Technology**

Ordering Information		
Ratchet- Heads (A/F)	Torque- Range (Nm)	Order #
20 - 70	250 - 2,500	SX-EC 2 MF
27 - 85	500 - 5,500	SX-EC 5 MF
50 - 120	1,200 - 12,000	SX-EC 12 MF
55 - 145	2,000 - 20,000	SX 20 TST
115 - 145	3,000 - 30,000	SX 30 TST
120 - 185MF	4,500 - 45,000	SX 45 TST

Call for other configurations.

Plarad Hydraulic Power Packs

Electric driven, manual or fully automatic ratcheting, up to 800 Bar (11,600 PSI) pressure.

- **Small, Lightweight, Low Noise, Continuous Duty Cycle**
- **110V, 230V, 400V Options**
- **Up to 800 Bar Pressure Operation**
- **.75L/Min – 3.0L/Min Flow Rates**
- **Microprocessor Technology**
- **Multiple Tool Operation Options**
- **Modular Design for Technology Upgrades**
- **Operating Hour Counter**
- **Data Control Unit-Torque Data Options**
- **Digital Display Remote Control Options**
- **Solid Frame/Cage Construction**
- **International Patented Technology**

Ordering Information

Description	Order #
Electric Driven, Manual, Working Pressure up to 800 bar	XB 2

Call for other configurations.

Tentec Aero Electric Driven High Pressure Hydraulic Pump

The Tentec Aero WTP3 is a self contained electric driven high pressure hydraulic pump unit that can generate pressures up to 1500 Bar.

- **External Dimensions: Length = 570mm, Width = 280mm, Height = 400mm, Weight (Empty) = 37kg, Weight (Full) = 41.7kg**
- **Max Pressure = 1500 Bar (Available in Higher Pressure Configurations)**
- **Oil Flow: Gear Pump = 3.9L/Min / Pressure Intensifier = 0.195L/Min, Piston Pump = 1.1L/Min / Pressure Intensifier = 0.06 L/Min, Max Flow at Low Pressure (800 Bar) = 0.25 L/min, Max Flow at High Pressure (over 800 Bar) = 0.061 L/Min**
- **Oil Capacity: Total Oil Capacity = 4.7L, Usable Oil Capacity = 1.7L**

Controller Hand Grip:

- **Ergonomic Hand Remote Controller**
- **Controlling Functions: Start Up, Pressure Rise, Unit Stop, Pressure Relief, Emergency Pressure Relief Button**

Ordering Information

Description	Order #
Electric Driven High Pressure Hydraulic Pump, 230v - 60Hz	HTT.8900.100
Electric Driven High Pressure Hydraulic Pump, 115v - 60Hz	HTT.8900.200
Electric Driven High Pressure Hydraulic Pump, 440v - 60Hz	HTT.8900.300
Electric Driven High Pressure Hydraulic Pump, 230v - 50Hz	HTT.8900.400
Electric Driven High Pressure Hydraulic Pump, 400v - 50Hz	HTT.8900.600
Electric Driven High Pressure Hydraulic Pump, 690v - 60Hz	HTT.8900.700

Tentec● Aero WTB Hydraulic Bolt Tensioning Tools

The new Tentec Aero WTB is a purpose designed range of hydraulic bolt tensioning tools to suit most wind turbine bolting applications.

- **Main Wind Turbine Bolted Applications: Rear Main Bearing, Nacelle Frame, Nacelle/Yaw Bearing, Blade to Bearing, Bearing to Hub, Front Main Bearing, Intermediate Tower Bolting**

- **Swivel Movement Ensures Versatility and Operator Comfort**

- **Geared Nut Run-Down**

- **"Snap-Down" Nut Drive**

- **High Life Puller**

- **Automatic Tensioner Reset**

- **Maximum Working Pressure = 1350Bar**

Specifications												
WTB												
Order #	Bolt Diameter	Stud Protrusion (mm)		Max. Stroke	Max. Load		Hydraulic Pressure Area		Dia A	Height B	D	Weight
	Metric	Min	Max	mm	kN	lbs.	mm2	In2	mm	mm	mm	kg
HTT.8010	M30	59	69	8	465.38	104622	3447.21	5.343	72	205	64	6.16
HTT.8011	M33	64	73	10	575.80	129444	4265.09	6.611	79	217.5	71	7.24
HTT.8012	M36	71	81	10	678.26	152478	5024.05	7.787	84.5	229.5	77	8.75
HTT.8013	M39	76	86	10	810.58	182225	6004.20	9.307	92	263	83	11.12
HTT.8014	M42	83	93	10	929.67	208999	6886.37	10.674	97	262.55	95	12.75
Low Height												
Order #	Bolt Diameter	Stud Protrusion (mm)		Max. Stroke	Max. Load		Hydraulic Pressure Area		Dia A	Height B	D	Weight
	Metric	Min	Max	mm	kN	lbs.	mm2	In2	mm	mm	mm	kg
HTT.8314	M36	71	91	10	678.14	152452	5023.4	7.79	123	167.5		9.97
HTT.8316	M42	83	103	10	930.15	209106	6889.96	10.68	142.5	181.3		13.94

Tentec● Aero WTF Hydraulic Bolt Tensioning Tools

These feature packed tensioners have been designed with rapid tensioning in mind and offer a safe, reliable and consistent method to simultaneously tension many foundation bolts.

- **25mm (1") Ram stroke for 'One Pull' Tensioning**
- **Geared Nut Run-Down**
- **Automatic Tensioner Reset**
- **Maximum Working Pressure = 1350Bar**

Specifications												
75 KSI - All Thread Bar												
Order #	Foundation Bolt Type	Gear Box	Stud Protrusion (mm)		Max. Stroke (mm)	Max. Load		Hydraulic Pressure Area		Dia A	Height B	D	Weight
			#10	#11		kN	lbs.	mm2	In2	mm	mm	mm	kg
HTT.8041.000A	Grade 75ksi All Thread	Y	260	257	25	472.6	106244.7	3500.72	5.426	110	231	56	10.84
HTT.8148		N	260	257	25	472.6	106244.7	3500.72	5.426	110	231	56	10.47
HTT.8040		Y	200	197	10	472.6	106244.7	3500.72	5.426	108	158	55	7.06
HTT.8147		N	200	197	10	472.6	106244.7	3500.72	5.426	108	158	55	6.69
HTT.7566.000A		N	205	198	10	469.3	105502.8	3128.83	4.85	142	144	41	10
150 KSI - All Thread Bar												
Order #	Foundation Bolt Type	Gear Box	Stud Protrusion (mm)		Max. Stroke (mm)	Max. Load		Hydraulic Pressure Area		Dia A	Height B	D	Weight
			1.3/8"	1.1/4"		kN	lbs.	mm2	In2	mm	mm	mm	kg
HTT.8343	Grade 150ksi All Thread	N	270	275	25	762.45	171404.8	5647.79	8.754	125	245	63.5	14.34
HTT.8341.000		N	215	223	10	762.45	171404.8	5647.79	8.754	125	175	62.5	9.72

Plarad DE Series Electric Nut Runner

Electric Nut Runner Torque Tool for multiple applications. 100Nm-12,000Nm torque capabilities.

- Torque Range: 100Nm - 12,000Nm
- 110V or 230V Options
- 2 Speed Operation - Manual or Automatic Gear Shifting
- Straight & Right Angle Drive Options
- Variable 360 Degree Adjustment of the Drive Unit
- Planetary Gear Operation

- Vibration Free, Low Noise Technology
- Comprehensive Range of Accessories (Extensions, Sockets, Offset Gears, Testing & Measurement)
- International Patented Technology
- Steel & Aluminum Gear Housing Options

Call for other configurations.

Ordering Information			
Description	**Torque- Range (Nm)**	**Output Drive**	**Order #**
Automatic Electric Nut Runner	250 – 825Nm	3/4"	DEAW 08 TLX-US
Automatic Electric Nut Runner	800 – 2,850Nm	1"	DEAW 28 TLX-US
Manual Electric Nut Runner	500 – 2,850Nm	1"	DEMW 28 TLX-US
Manual Electric Nut Runner	1,200 – 6,500Nm	1 1/2"	DEMW 65 TLX-US
Standard Reaction Arm			DEA/M 08 TLX/TSX-US

Norbar NOR18008 Handtorque Multiplier

Handtorque HT 60 Series Torque Multipliers are built to the highest manufacturing standards, and provide accurate and repeatable performance across a high torque range.

- **Reduced Diameter Allows Better Access, Particularly on Tower Bolts and Flanges**
- **Reaction Foot Can Slide on the Spline to Allow For Sockets of Various Lengths**

- **Reaction Taken from High Strength Spline**
- **Anti-Wind-Up Ratchet Prevents Backlash, Making for Safe and Practical Operation**

Specifications	
Accuracy	+/- 4%
Range	440 to 4,400 lb-ft, 00 to 6,000 Nm
Multiplication Ratio	25:1
Velocity Ratio	29.752:1
Weight	23 lbs. (10.6 Kg)
Input Drive	½" square drive
Output Drive	1-1/2" square drive
Max. Input Speed	60 RPM

Ordering Information	
Description	**Order #**
Handtorque Multiplier	18008

Transcat NOR17221 Handtorque Multiplier

Handtorque HT 3 Series Torque Multipliers are built to the highest manufacturing standards, and provide accurate and repeatable performance across a high torque range.

- **Small and Compact Size Allows Easy Access, Particularly Bolt Circles and Flanges**
- **Designed For Minimal Maintenance**

- **Two Supplied Reaction Bars Provide Maximum Flexibility**
- **Built with the Highest Quality Components**

Each Unit Includes: Two Easy-to-Change Reaction Bars. Durable Plastic Carrying Case

Specifications	
Accuracy	+/- 4%
Range	200 to 2,000 lb-ft, 270 to 2,700 Nm
Multiplication Ratio	5:1
Velocity Ratio	5.333:1
Weight	8.3 lbs. (3.8 Kg)
Input Drive	½" square drive
Output Drive	1" square drive

Ordering Information	
Description	**Order #**
Handtorque Multiplier	17221

Norbar NOR43237 Torque Wrench Checker

The Norbar NOR43237 is an accurate and simple to operate torque wrench checker. There is only one button used to zero the unit prior to measurement.

- Accurate and Durable
- Easily Portable or can be Fixed and Mounted
- No Special Skills Required to Use
- Can be Provided with Options
- For Use with Click Style or Dial Torque Wrenches

Specifications	
Accuracy	±1% of reading
Range	75 to 750 lb-ft
Display	4 digit 7 segment LED, updates twice per second
Reset Hold Time	2 seconds
Operating Temp.	41 °F to 104 °F
Power	110 to 220 VAC
Drive	27mm male hex

Each Unit Includes: Torque Wrench Checker with Certificate of Calibration, ¾" Drive Socket, Instruction Manual, Plastic Carrying Case

Ordering Information	
Description	Order #
Torque Wrench Checker	NOR43237

Norbar NOR50630 Static Torque Transducer

Designed to calibrate and test all types of non-impacting torque tools, including hydraulic wrenches of any manufacturer.

- Class 1 Certification Means Calibration-Quality Performance
- Heat Treated Alloy Steel Torsion Shaft
- Operates in Clockwise and Counter Clockwise Direction (Upon Request)
- Ignores Non-Torsional Forces

Specifications	
Accuracy	-15° C to 120° C
Range	500 to 5,000 lb-ft
Over-torque Protection	150%
Torsional Deflection	< 1°
Operating Temp.	14 °F to 122 °F
Connector	6 pin Mil Spec
Drive	1-1/2" male to 1-1/2" female

Each Unit Includes: Static Transducer with Certificate of Calibration, Instruction Manual, Pelican-style Carrying Case

Ordering Information	
Description	Order #
Static Torque Transducer	50630.LOG

Norbar NOR43228 Torque Tool Tester

Torque Tool Tester Series 3 is a calibration-quality torque display with three separate torque transducer inputs, is rugged enough for everyday field use, and accurate enough for use in calibration laboratories worldwide.

- Pictoral Display Panel Allows for Easy Mode Selection
- 12 User-Defined Torque Targets Include Low, Pass, and Fail Indications
- RS232 Output Provides Real Time Transfer of Torque Data for Storage or Manipulation
- Password Protected to Prevent Unauthorized Tampering

Each Unit Includes: TTT display with Certificate of Calibration, AC Power Adapter and Power Cord, RS232 Cable, Instruction Manual, Plastic Carrying Case.

Specifications	
Inputs	3 transducers, 'SMART' chipped or mV/V
Accuracy	± 0.5%
Units of Measurement	13 user selectable units
Display Resolution	5 digits
Modes of Operation	6 user selectable modes
Outputs	RS232 (up to 11 readings per second) True Analog Output
Power	9 VDC battery, 14 hour minimum life on full charge 90 to 260 VAC
Operating Temp.	41 °F to 104 °F, 5 °C to 40 °C

Ordering Information	
Description	Order #
Torque Tool Tester	NOR43228

Shimpo Instruments TCT Series Digital Torque Checker

The TCT Series Digital Torque Checker provides a highly accurate, easy to use torque verification tool, used to guarantee accuracy of handheld torque wrenches, as well as power drills, impact wrenches and pneumatic torque drivers.

- **Full Color LCD Touch Screen**
- **On Screen Statistics**
- **0.5% Accuracy**
- **Multiple Capacity Ranges (up to 300 Ft-Lbs)**
- **Export Data Directly to SD Memory Card**
- **Automatic Screen Rotation for Multiple Mounting Positions**
- **Quick Run Mode Provides Instant Auditing and Verification of Tools**

- **Measurement Mode Allows Users to Establish Acceptable Hi-Lo Tolerances**
- **Lithium Ion Battery Provides Extended Battery Life**
- **Peak and Track Measurement Modes**
- **Made in USA**

Each Unit Includes: TCT Torque Checker, 5 VDC Power Adapter/Charger, 0.5-500 in-lb Rundown Adapter (for Units up to 500 in-lb), User Manual

Specifications

Mfg #	TCT-I-010	TCT-I-050	TCT-I-100	TCT-I-250	TCT-I-100	TCT-I-300
Range	1.0 - 10.0 in-lb	1.0 - 10.0 in-lb	1.0 - 10.0 in-lb	1.0 - 10.0 in-lb	1.0 - 10.0 in-lb	1.0 - 10.0 in-lb
Accuracy	± 0.5% of Rdg. from 10% to 100% of F.S., ± 1.0% of Rdg. from 5% to<10% of F.S.					
Units of Measure	8 Total - in oz, in Lb, Ft Lb, Nm, cNm, Kg cm, gf cm, kg m					
Measure Modes	Peak, Track					
Overload Protection	150% of Full Scale (Display Shows "Overload" at 100% and Above)					
Power/ Battery Life	AC or Lithium Ion (Rechargeable), 5V DC Input Power (1000mA), Advanced Battery management system. Warns with a low battery indicator and then will power off the unit. 12 hours Idle or 4 Hours of Continuous Use					
Dimensions/ Weight	9"x4"x3.125", Approx. 6 lbs					
Data Analysis	CP, CPK					
Outputs	Optional SD Card slot or USB (mini B)					
Included Accessories	0.5 - 500 in-lb rundown adaptor kit, 5V DC Power Adapter (115 VAC), User Manual					5V DC Power Adapter (115 VAC), User Manual

Ordering Information

| Description	Order #
TCT Torque Checker 1.0-10.0 in-lb	TCT-I-010
TCT Torque Checker 2.5-50.0 in-lb	TCT-I-050
TCT Torque Checker 10.0-100.0 in-lb	TCT-I-100
TCT Torque Checker 25.0-250.0 in-lb	TCT-I-250
TCT Torque Checker 10.0-100.0 FT-lb	TCT-F-100
TCT Torque Checker 30.0-300 FT-lb	TCT-F-300
Transcat Accredited Calibration	Call

Recommended Accessories

6 Ft Male to Male Mini USB B Cable	TCT-USBMB-6
512 MB SD Memory Card	TCT-SD-512MB
1 GB SD Memory Card	TCT-SD-1GB
TCT Storage/Carrying Case	TCT-Case
TCT Bench Mount Bracket	TCT-BM
Universal Power Adapter (115-230VAC)	TCT-UPA-5VDC
5VDC Power Adapter (115VAC)	TCT-PWD-ADP

Improve your Tool Tracking through Transcat's Asset Management System: CalTrak® Online

Call 1.800.779.5289 or visit Transcat.com/windenergy

Starrett 799 Series Electronic Calipers

Offers a slim, streamlined profile, a large, clear, easy-to-read LCD display, long battery life, and function buttons for zero and inch/mm.
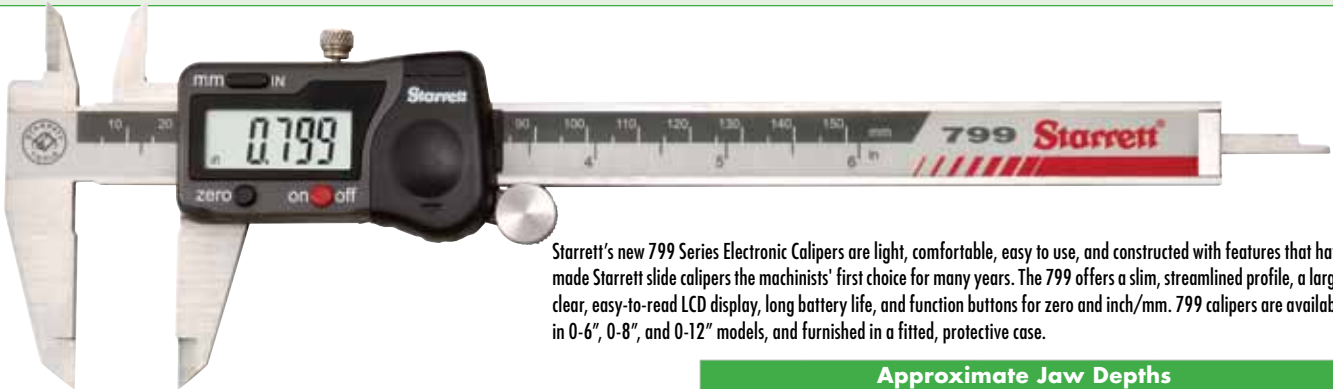
Starrett's new 799 Series Electronic Calipers are light, comfortable, easy to use, and constructed with features that have made Starrett slide calipers the machinists' first choice for many years. The 799 offers a slim, streamlined profile, a large, clear, easy-to-read LCD display, long battery life, and function buttons for zero and inch/mm. 799 calipers are available in 0-6", 0-8", and 0-12" models, and furnished in a fitted, protective case.

- **Lightweight, Ergonomic Design**
- **Large Easy-to-Read LCD, .32" High**
- **Inch/millimeter Conversion Reads .0005" or 0.01mm**
- **Zero at Any Position**
- **Automatic Shut-off after Five Minutes of Non-Use**
- **Last Measuring Position Retained when Shut Off**
- **Easy Access to the Single, Long-Life Battery**
- **Hardened Stainless Steel Body for Long Life**
- **Integrated Depth Rod on All Sizes**
- **Fine Adjustment Thumb Wheel**
- **Lock Screw to Hold the Slide in Position**
- **Resolution is .0005" (0.01mm)**
- **Linear Accuracy Meets DIN862**

Approximate Jaw Depths

	6" (150mm)	8" (200mm)	12" (300mm)
Outside	1-1/2" (38mm)	2" (50.8mm)	2-1/2" (63.5mm)
Inside	5/8" (38mm)	3/4" (19mm)	23/32" (18.3mm)

Ordering Information

Description	Range	Order #
Caliper in Fitted Plastic Case	0-6" (150mm)	85168PD
Caliper with Standard Letter of Certification* in Fitted Plastic Case	0-6" (150mm)	799A-6/150 W/SLC
Caliper in Fitted Plastic Case	0-8" (200mm)	85170PD
Caliper with Standard Letter of Certification*, in Fitted Plastic Case	0-8" (200mm)	85171PD
Caliper in Fitted Plastic Case	0-12" (300mm)	85167PD
Transcat Accredited Calibration		Call

Recommended Accessories

Center Distance Attachment	PT26151
Depth Attachment for 6" and 8" Calipers	PT22431
Deluxe Padded Case for 0-6 (150mm) Calipers	85174PD
Finished Wood Case for 0-8 (200mm) Calipers	85175PD
Finished Wood Case for 0-12 (300mm) Calipers	85176PD

NOTE: * Includes redemption card for Standard Letter of Certification (SLC).

Starrett 120AM-150 Metric Caliper

Direct reading, reliable, and accurate.

- **Covered Rack Depth Rod**
- **Sharp, Clear Dial Graduations of 0.02mm - 2mm in One Revolution**
- **Rack Teeth Point Down to Make it Easy to Shed Foreign Matter and Thereby Keep the Area Clean**

Ordering Information

Description	Order #
Starrett 120AM-150 - Metric 0-150mm Caliper	120AM-150
Transcat Accredited Calibration	Call

Starrett 795/796 Electronic Micrometers

IP67 level of protection against coolant, water, chips, dirt, dust, and other contaminants in hostile shop environments.

- **Large, Easy-to-Read (.275"/7mm), High-Contrast LCD Digital Readout**
- **Balanced, Tapered Frame for Comfortable and Accurate Measuring**
- **Extremely Hard, Stable and Smooth Operating One-piece Friction Thimble**
- **Two 3-Volt Batteries Included for More than One Year of Normal Usage**
- **Micro-Lapped Carbide Measuring Faces**
- **Instant Inch/Millimeter Conversion**

- **Measurement HOLD Button**
- **795 Model Includes an RS232 Output Port**
- **Resolution: .00005" (0.001mm)**
- **Accuracies: Inch: ±.0001" Metric: ±.002mm**

795

Ordering Information

Description	Order #
0-1" IP67 Elec. Mic w/Friction Thimble, Lock Nut, Carbide Faces, in plastic case. With output	85251PD
0-1" IP67 Elec. Mic w/Friction Thimble, Lock Nut, Carbide Faces, in plastic case. W/O output	85252PD
Transcat Accredited Calibration	Call

Recommended Accessories

1m Shielded Cable to Starrett 761/772	85253PD
2m Shielded Cable to Starrett 761/772	85254PD
3m Shielded Cable to Starrett 761/772	85255PD
Adapter from PT62680-1, PT62680-2 and PT62680-3 to PC (RS232)	85180PD
Two 3-Volt Batteries, No. CR2032	85256PD

Starrett 765A Electronic Snap Gage

High quality, economical gage that is ideal for inspectors, purchasing agents, sales people and others who need to quickly measure materials up to 1/2" or 12.7mm thick.

- **Balanced, Compact Design**
- **Simple, Logical Control Buttons**
- **Easy-to-Read LCD**
- **Single, Long-Life Battery with Easy Access**
- **Light-Weight Aluminum Frame**
- **Inch/Millimeter Conversion**
- **Zero at any Position**
- **Manual ON/OFF, AUTO OFF**
- **Furnished in Fitted Plastic Case**
- **Linear Accuracy: 02mm**
- **Resolution: 01mm**

Ordering Information

Description	Order #
Starrett 765A Electronic Snap Gage	S765A
Transcat Accredited Calibration	Call

Mitutoyo Digital Calipers

Digital Calipers: Absolute encoder, takes OD, ID, and step measurements, inch/ metric measurements, large .295" high LCD digits (.365" digits for 12" models), and 3-1/2 year battery life (20,000 hrs).

Ordering Information				
Range	LCD Resolution	Accuracy	Remarks	Order #
0–6"	.0005"/.01mm	±.001"	SPC Output	500-171-20
0–8"	.0005"/.01mm	±.001"	SPC Output	500-172
0–12"	.0005"/.01mm	±.0015"	SPC Output	500-173
0–4"	.0005"/.01mm	±.001"	No SPC Output	500-195
0–6"	.0005"/.01mm	±.001"	No SPC Output	500-196
0–8"	.0005"/.01mm	±.001"	No SPC Output	500-197
0–12"	.0005"/.01mm	±.0015"	No SPC Output	500-193
Transcat Accredited Calibration				Call

▲ **500-196**
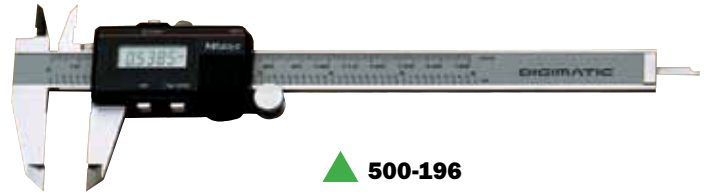
Starrett TRU-LOK° TAPES
3/4"(19mm) blades, 5M/16' with chrome case

- **16 ft Length**
- **1/16 inch, 1mm Graduation**
- **3/4 inch Width**
- **HCS Tape Material**
- **Ft, inch, mm Unit of Measurements**
- **Yellow Tape Color**

Ordering Information	
Description	Order #
Starrett TRU-LOK Tape 3/4" Blades	C34-5ME12

Starrett 565 Series Drive Pin Punches

Drive pin punches are well proportioned, hardened, properly tempered and nicely finished.

- **Knurled Finger Grip**
- **4" Drives**
- **Each Punch has the Size Stamped on the Head**

Ordering Information				
Length		Diameter Punch		
Inch	mm	Inch	mm	Order #
4"	100mm	1/16"	1.5mm	80189TL
4"	100mm	3/32"	2.5mm	80190TL
4"	100mm	1/8"	3mm	80191TL
4"	100mm	5/32"	4mm	80192TL
4"	100mm	3/16"	5mm	80193TL
4"	100mm	7/32"	5.5mm	80194TL
4"	100mm	1/4"	6mm	80195TL
4"	100mm	5/16"	8mm	80196TL
Set of 8 Punches (1 of Each Size) in Round Red Plastic Box				S565WB
Set of 8 Punches (1 of Each Size) in Protective Vinyl Case				80198TL

Starrett 533 Series Fiberglass Long Line Tapes

- **Waterproof ABS Frame and Case for Easy Clean Up**
- **Long Rewind Handle With Rotating Fingertip Knob for Fast, Smooth Blade Rewind**
- **Pointed Bottom End of Frame Allowing Accurate Tape Line Positioning**
- **Corrosion Resistant Steel Exit Rollers**

Ordering Information

Description	Order #
15M Length, 13mm Blade Width	533-15CM
30M Length, 13mm Blade Width	533-30CM
50M Length, 13mm Blade Width	533-50CM

Starrett Aluminum Straight Edge Rules

- **Anodized Aluminum with Smooth Edges**
- **Parallel, Accurate, and Flexible**
- **Inch Graduations, 8ths and 16ths**
- **ASE Series: 2" (50mm) Wide and .081" (2.1mm) Thick**
- **AR Series: 1-1/8" (30mm) and .075" (1.9mm) Thick**
- **AR2: Ruled on Both Sides**
- **Large, Easy-to-Read Numbers**

Starrett® No. ASE-24 Aluminum Straight Edge Rule

Ordering Information

Description	Order #
24" Aluminum Straight Edge Rules	ASE-24

Description	Order #
36" Aluminum Straight Edge Rules	ASE-36

Description	Order #
48" Aluminum Straight Edge Rules	ASE-48

Stahlwille Steel Rule

- **Anodized Aluminum with Smooth Edges**
- **Parallel, Accurate, and Flexible**

Ordering Information

Description	Order #
Ruler, Metal, 0-300mm	77460001

CorDEX Instruments Ltd. UT5000
Intrinsically Safe Thickness Gauge

UT5000 is designed for safe operation within potentially explosive areas. A truly rugged design, UT5000 provides reliable operation and accurate readings, with onboard 1000 measurement point storage.

- **Featuring CorDEX CONNECT™**
- **Stores up to 1000 Measurements**
- **MultiECHO™ Technology**
- **Corrosion Mode**

Each Unit Includes: Certified Ultrasonic Thickness Gauge, Battery, USB Communication Wand, 5 x Intrinsically Safe RFID Tags, Couplant Gel, Hard Carry Case, Wrist straps, CorDEX CONNECT™ License, Mini App License, Documentation CD.

UT5000 ▶

Ordering Information

Description	Order #
Intrinsically Safe Ultrasonic Thickness Gauge	UT5000

Starrett No. 25 Series Dial Indicators – AGD Group 2

Accurate, rugged, versatile, convenient to use and inexpensive—for these reasons and more, mechanical dial indicators with bottom plungers are the measurement workhorses of industrial production.

- Nonreflecting White Eggshell Finish on Dial (Metric Models have Yellow Dials)
- Unbreakable Crystal
- Hardened Stainless Steel Stem
- Positive-Acting Clamp Locks Bezel in Position
- .375" Mounting Diameter
- Interchangeable Contact Point
- Hardened Stainless Steel Rack and Spindle
- Lug on Center Back Standard

Ordering Information	
Description	**Order #**
.0001" Grad, .025 Range, 0-5-0 Dial	25-111J
.0001" Grad, .200 Range, 0-5-0 Dial	25-511J
.001" Grad, .500 Range, 0-5-0 Dial	25-341/5J
.001" Grad, 1.00 Range, 0-100 Dial	25-441J W/SLC
.001" Grad, 2.00 Range, 0-100 Dial	25-2041J
.001" Grad, 4.00 Range, 0-100 Dial	25-4041J
.001mm Grad, 25 mm Range, 0-100 Dial	25-881J-8
Transcat Accredited Calibration	Call
Recommended Accessories	
Magnetic Back	676-2
Flat Back	PT06608J
Contact Point Set – 14 Pieces on ring	25R

Starrett Magnetic Base Indicator Holders

Starrett offers a full line of indicator holders to meet the requirements of a wide variety of applications.

- Powerful Magnetic Base
- Positive On/Off Switch
- Horizontal and Vertical Mounting Positions
- Articulating Arms Designed to Hold Indicators

657T

659A

657D

660
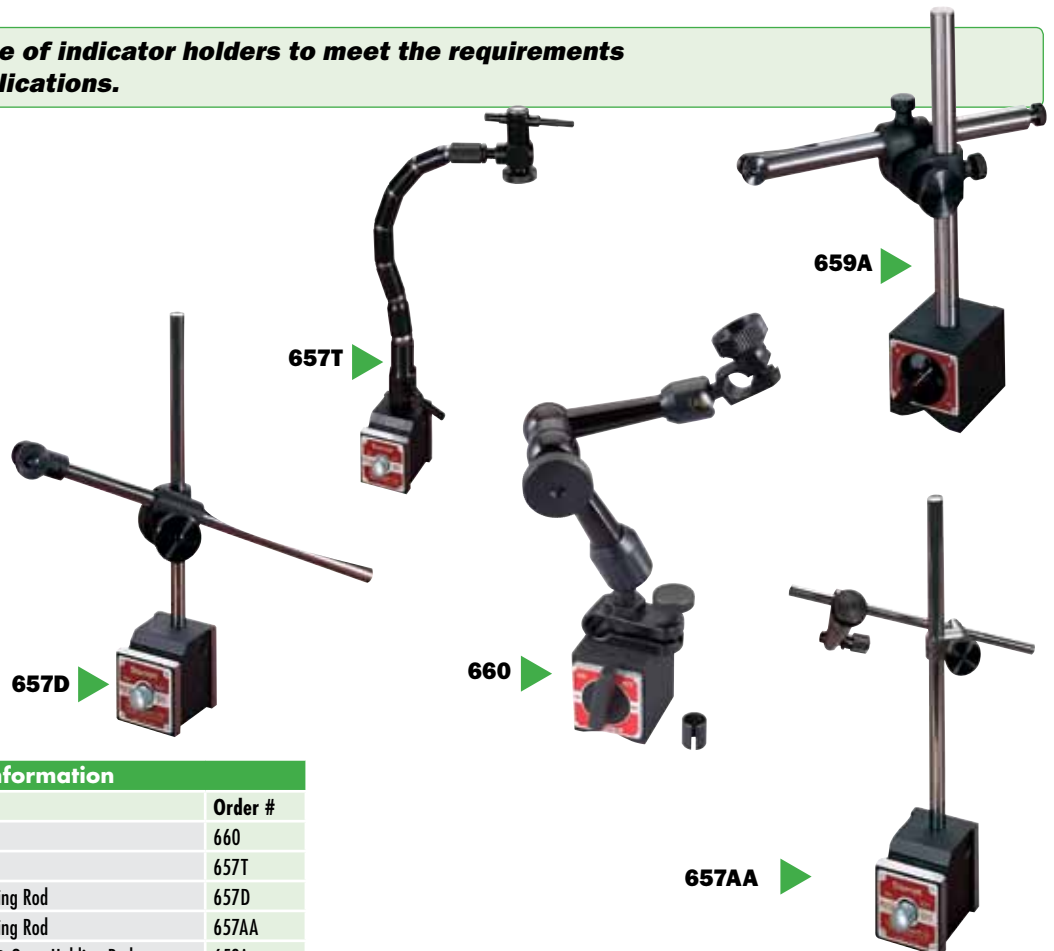
657AA

Ordering Information	
Description	**Order #**
Magnetic Base with Triple-Jointed Arm	660
Magnetic Base with Flex-O-Post	657T
Magnetic Base with Upright Post & Gage Holding Rod	657D
Magnetic Base with Upright Post & Gage Holding Rod	657AA
Heavy Duty Magnetic Base with Upright Post & Gage Holding Rod	659A

Megger® MIT 300 Series Insulation and Continuity Testers

Megger's MIT 300 Series equips you with rugged, economical instruments that are easy to operate.

- **Easy to Operate – No Buried Functions; Complete with Color-Coded Voltage Ranges; Full Instructions on the Lid for Quick Reference**

- **Ideal for Production and Manufacturing Environments**

- **Safety Features: Interlock and Lockout; Live Voltage Warning; "Intelligent" Safety Package, Auto Discharge**

- **250V, 500V, and 1,000V Ranges**

- **Rugged Design**
  - — **Protective Shock Absorbing Case**
  - — **Weatherproof; IP54 Rated**

- **Three Year Warranty**

The MIT300, MIT310, MIT320 and MIT330 all feature the established Megger Digital/Analog LCD display. Large 20mm high characters provide very clear readout, combined with an analog arc for the 'feeling' of an analog instrument, with a true analog response.

▲ **MIT310**

Ordering Information	
Description	**Order #**
Insulation and Continuity Tester; 250V, 500V Ranges	MIT300
Insulation and Continuity Tester; 250V, 500V, 1,000V Ranges	MIT310
Insulation and Continuity Tester; 250V, 500V, 1,000V Ranges	MIT320
Insulation and Continuity Tester; 250V, 500V, 1,000V Ranges Data Storage & Download Software	MIT330-EN
Transcat Accredited Calibration	Call

Megger® MIT510/2 5kV Insulation Resistance Tester

Designed specifically to assist you with the testing and maintenance of high voltage electrical equipment.

- **Measures to 15 TΩ**
- **CAT IV 600V**
- **Mains or Battery Powered**
- **Digital/Analog Backlit Display**

- **Selectable Test Voltage from 250 to 5,000V**
- **Automatic IR Test**
- **Complete with Calibration Certificate**

The new 5kV insulation resistance testers from Megger are designed specifically to assist you with the testing and maintenance of high voltage electrical equipment. The case is incredibly rugged and easy to carry, being made of tough polypropylene and achieving an ingress protection rating of IP65.

The instrument has a large easy-to-read backlit LCD display making it equally suitable for use in both bright sunlight and poorly lit environments. Information displayed includes resistance, voltage, leakage current, capacitance, battery status and time constant. In addition, the elapsed time of the test is displayed constantly, removing the need for separate timers.

The instrument can test when being powered by the mains or its internal rechargeable battery, a great benefit when site conditions are unknown or long term testing is required. The controls of the instrument are clear and unambiguous and a "quick start" guide is included in the lid of the instrument removing the need to carry bulky manuals under site conditions.

Each Unit Includes: 3m Lead Set and User Guide on CD-ROM.

Ordering Information	
Description	**Order #**
5kV Insulation Resistance Tester	45417EL
Transcat Accredited Calibration	Call

Megger• MIT520/2 & MIT1020/2
5kV and 10kV Insulation Resistance Testers with Data Storage

Designed specifically to assist you with the testing and maintenance of high voltage electrical equipment.

- **Measures to 15 TΩ (5 kV) and 35 TΩ (10 kV)**
- **CAT IV 600V**
- **Mains or Battery Powered**
- **Variable Test Voltage from 50 to 5,000 or 10,000V**
- **Automatic IR, PI, DAR, SV and DD Tests**
- **RS232 and USB Download of Results to Megger® Download Manager**
- **On Board Memory for Results Storage**

The new 5 & 10kV insulation resistance testers from Megger are designed specifically to assist you with the testing and maintenance of high voltage electrical equipment. IEEE 43-2000 recommends the use of 10kV for motor windings rated above 12kV and the Megger MIT1020/2 facilitates this. The case is incredibly rugged and easy to carry, being made of tough polypropylene and achieving an ingress protection rating of IP65. In addition, the model number is marked on both the top and side of the case for ease of identification in stores or vehicles. The instruments have a large easy-to-read backlit LCD display making it equally suitable for use in both bright sunlight and poorly lit environments. Information displayed includes resistance, voltage, leakage current, capacitance, battery status and time constant. In addition, the elapsed time of the test is displayed constantly removing the need for separate timers. Adjustable timers and limit alarms are included.

▲ **MIT1020/2**

Each Unit Includes: 3m Lead Set, RS232 Cable, USB Cable, User Guide on CD-ROM.

Ordering Information	
Description	**Order #**
5kV Insulation Resistance Tester	45418EL
10kV Insulation Resistance Tester	45419EL
Transcat Accredited Calibration	Call
Recommended Accessories	
15m Lead Set (5kV Only)	45500EL

AEMC• 6505 5000V Megohmmeter

Features include automatic calculation and presentation of the Dielectric Absorption Ratio (DAR) and Polarization Index (PI).

- **Test Voltage Combination of 500V, 1000V, 2500V and 5000V**
- **Insulation Measurements from 30kΩ to 10TΩ**
- **Adjustable and Programmable Test Voltage (40 to 5100V)**
- **Automatic Calculation of DAR and PI Values**
- **Direct Measurement and Display of Capacitance and Leakage Current**
- **Display of Resistance, Test Voltage and Run Time**
- **Programmable Test Run Times and PI Ratio Times**
- **Automatic Test Inhibition if Live Sample (>25)**
- **Automatic Discharge and Display of Discharge Voltage**
- **Large Dual-Display with Time, Voltage and Measurements Shown**
- **Rugged Dual Wall Weatherproof Field Case**
- **Designed and Built to IEC Safety Standards**
- **EN 61010-1, 1000V CAT III**

Each Unit Includes: Classic Tool Bag, 3 color coded 6 ft leads, 3 color coded alligator clips, Jumper lead, Fuse, Rechargeable battery pack, 115V power cord, User Manual

Ordering Information	
Description	**Order #**
6505 5000V Megohmmeter	2130.18
Transcat Accredited Calibration	Call

AEMC• 5060 5000V Digital/Analog & Graphical Megohmmeter

True Megohmmeter•, with test voltages up to 5,000V.

- 500V, 1,000V, 2,500V and 5,000V
- Insulation Measurements from 30 kΩ to 10,000 GΩ
- Programmable Test Voltage from 40 to 5,100V
- Automatic Calculation of DAR, PI and DD Ratios
- Measurement and Display of Capacitance and Leakage Current
- Display Resistance, Test Voltage and Run Time Valves
- Programmable Test Run Times and PI Ratio Times
- Automatic Discharge and Display of Discharge Voltage

- Large Dual-Display with Time, Voltage and Measurements Shown
- Programmable Test Voltage Lock-out
- Programmable Alarm Setting
- Auto Power-Down when not in Use
- AC or DC Powered with Rechargeable NiMH Batteries
- Rugged Dual Wall Weatherproof Field Case
- EN 61010-1, 1,000V CAT III
- Includes DataView® Software for Data Storage, Real-Time Display, Analysis and Report Generation

Ordering Information

Description	Order #
5060 5000V Digital/Analog & Graphical Megohmmeter	2130.21
Transcat Accredited Calibration	Call

Megger• MIT400 Series Industrial & Telecom Insulation Testers

These combine the latest range of measurement techniques with a new instrument design to provide a state-of-the-art tester that is compact and comfortable to hold.

- CAT IV 600V Application
- Continuity Testing at 200mA Down to 0.01Ω
- Insulation Testing to 1,000V and to 200 GΩ
- Analog and Dual Digital Display
- Insulation & Continuity Limit Alarms
- PI/DAR and Timer Function
- Test Data Storage on Select Units
- Bluetooth Wireless Data Transfer on Select Units

- TRMS & DC Voltage Measurement
- Alkaline or Rechargeable Batteries
- Calibration Certificate
- Live Circuit & Protected
- Automatic Discharge
- Weather Proof to IP54 Standard
- Cable Length by Capacitances
- Shock Absorbing Over Protector
- Three Year Warranty

Each Unit Includes:
Test leads: Two wire lead set to CAT IV 600V, consisting of:
1 x Red lead 1.25m complete with probe
1 x Black lead 1.25m complete with probe
1 x Red croc clip
1 x Black croc clip
1 x instrument rubber boot

1 x Calibration certificate
1 x Remote switch probe (except MIT400, MIT480 and MIT40X)
User manual (To meet EN61557 requirements)
MIT410-TC2 Includes: Soft Case, Bed of Nails Lead Set, and Quick Start Guide.

MIT420

Ordering Information

Description	Order #
Basic CAT III 600V w 250V/500V/1,000V	45551EL
Basic CAT III 600V w 50V, 100V, 250V, 500V, 1,000V, PI and DAR testing	45552EL
Multi-Purpose Meter for CAT V	MIT410-TC
Advanced CAT IV 600V with Result Storage	45553EL
Bluetooth Downloading Version of MIT420	45554EL

Hoyt 6212A IN Digital H.V. Insulation Tester

High performance accuracy and reliability.

- 0.5kV – 10kV Insulation Test Voltages
- Auto-Ranging Insulation Resistance
- Display Warning of External Voltage
- EN/IEC 61010-1 CAT III

- Accuracy: +/- 3% of Reading +/- One Digit
- Test Voltage: 0.5V – 10kV (0.5kV Increment Steps)
- Output Current Limit: 50 DCUA - 100 DCUA (1W)

Each Unit Includes: Test Leads, Instruction Manual, and Batteries

Ordering Information

Description	Order #
Digital H.V. Insulation Tester	6212A IN

Megger® DLRO10/10X Digital Low Resistance Ohmmeter

DLRO-10X displays both forward and reverse measurements, as well as, the average of the two.

- Accurate Results in Under Three Seconds

- Accuracy ±0.2% ±2 Counts All Ranges

- 4-Wire Measurement Cancels Out Lead Resistance

- Automatically Selects Suitable Test Current

- Auto Current Reversal Cancels Standing EMFs

- User Settable High/Low Limits (DLRO-10X Only)

- Auto-Ranging Manual Menu Option on DLRO-10X

- DLRO-10X Stores Test Results and Has Printer Output (RS-232)

- 250 mW Power Limit (with Optional Override) to Avoid Heating the Test Sample

- Automatically Detects Continuity in Potential and Current Connections

- Visible Warning of Voltages Present at the Terminals

1000-809 ▶

1000-809 Includes: Kelvin clip and hook ends on heavy duty cable reel with friction break (100 meters long), a DH2 lead with duplex hand spike and hook end (5 meters long).

▲ DLRO-10X

Ordering Information

Description	Order #
Digital Low Resistance Ohmmeter	DLRO-10
Digital Low Resistance Ohmmeter with Data Storage and Download	DLRO-10X
Transcat Accredited Calibration	Call
Recommended Accessories	
Wind Turbine Lightning Protection Test Lead Set	1000-809
Carrying Case for Optional Lead Sets	18313

Each Unit Includes: NiMH battery module, Two Duplex handspikes 1.2m/4 Feet, one with indicator lights, Battery charger for operation from 115/230V 50/60 Hz, Cigarette lighter adapter for battery charging, nylon neck strap, download manager software, user guide, warranty manual.

Megger.

Megger is your source for wind energy test equipment. Our products offer the highest ranges, best IP rating and highest CAT rating in the industry (CATIV 600V).

For over a century, Megger has been designing, developing and manufacturing high-quality, safe and reliable test equipment.

DET14C/24C
Clamp-on Ground Testers

Megger has improved ground testing technology. Here are a few of the advanced features of the DET14C/24C:

- A large elliptical jaw that allows testing at any angle and on the largest ground rods.
- Smooth mating surfaces on clamp head means no interlocking teeth.
- Intelligent data hold function increases ease of use in difficult locations.
- Data storage reduces potential for error in recording results.
- Noise filter function provides the best immunity to noise current.
- Ultra-long battery life reduces the cost of ownership.
- Three year warranty.

The Megger 5- and 10-kV insulation resistance testers take diagnostic testing to a new level with ease of use and continued performance.

- Industry-best guard terminal performance for the most precise diagnostic measurement.
- High measurement sensitivity to 15 TΩ (5-kV models) and 35 TΩ (10-kV model) enables installation testing and long-term trending of higher value apparatus.
- 3 mA short circuit current allows for faster charging and testing of large, inductive loads.
- 10-kV output voltage (MIT1020/2) fully conforms to IEEE43:2000 for the testing of large motors.
- IP65 case rating for use in most weather conditions.

MIT5/10 Series
5 & 10 kV Insulation Testers

MIT410
1 kV Insulation Tester

The award-winning MIT400 Series of hand-held insulation testers feature high performance, greater safety and exceptional measurement.

- Exceptional measurement range from 20 GΩ to 200 GΩ, the highest test range available on the market today.
- True RMS allows accurate voltage measurement on noisy lines.
- A live circuit warning reduces the risk of accidental shock from dead circuit.
- CATIV 600V rating.
- Rated to IP54 for weatherproof performance.
- Three year warranty.

Megger.

Megger• MOM2 Microhmmeter

The MOM2 is designed to measure the resistance of circuit breaker contacts, bus-bar joints and other high-current links. This product is designed with safety, ease of use and versatility in mind.

- Up to 220A
- Battery Supplied
- Lightweight – 1 kg
- Safe Test – DualGround™
- Auto Range: 1 µΩ to 1000 mΩ
- Bluetooth® PC Communication
- Complies with IEEE and IEC Standards

Ordering Information

Description	Order #
MOM2 with: 2 x 1.3 m (4 ft) test cables with Kelvin probes (one with trig button), transport case, charger, Rubber holster, carrying strap, belt clip, MOM2 Win	BD-59090
MOM2 with: 1.3 m (4 ft) test cable red with Kelvin clamp 3 m (10 ft) test cable black with Kelvin clamp Transport case, charger, rubber holster, carrying strap, Belt clip, MOM2 Win	BD-59092

AEMC• 6240 10A Micro-Ohmmeter

Automatically takes multiple measurements by simply moving the test probes from point to point.

- EMF Levels Measured and Eliminated (in Measurement)
- Selectable Test Current and Resistance Ranges
- 0.25% Accuracy and 1µΩ Resolution
- Simple One Button "Press-To-Start" Operation and Large, Easy-to-Read Display
- Software Temperature Correction for Accurate Measurements
- Front Panel Buttons for Polarity Reversal, Data Storage, Data Recall and Display Options
- Stores Test Results in Memory
- Data Storage, Analysis and Report Generation through DataView® Software Included

Each Unit Includes: NiMH rechargeable 6V battery pack, set of two Kelvin clips (10A) 10 ft., US 120V power cord, carrying bag, user manual and DataView Software.

Ordering Information

Description	Order #
10A Micro-Ohmmeter Model 6240 (Includes One Set of 10A Kelvin Clips)	45930EL
Transcat Accredited Calibration	Call
Recommended Accessories	
Kelvin Clips (1A-10A), set of two, 20'	2118.80
Kelvin Probes (1A), set of two, spring loaded, 10'	2118.73
Kelvin Probes (1A), set of two, spring loaded, 20'	2118.74
RTD Temperature Probe (plug into faceplate for ambient temperature) (for use with Model 6250 only)	98175TE
RTD Temperature Probe with 7' extension cable (for use with Model 6250 only)	98176TE

Megger® BT51 Low Resistance Ohmmeter

Simply select one of two ranges and connect the resistance under test, there's not even a test button to worry about. The instrument passes a 2A test current in up 2 Ohms making it ideal for use with very long test leads.

- **2A Test Current Into 2Ω Resistance**
- **Protection Against Inadvertence Connection to Line Supply**
- **Four Terminal Measurement**
- **20mΩ and 2,000mΩ Ranges With Maximum 0.01mΩ Resolution**
- **Can use Very Long Test Leads**
- **LED 3 ½ Digit Display Ideal for Use in Low Light**

Specifications				
Test Current	**Resistance Range**	**Resolution**	**Accuracy**	**Full Scale Voltage**
2A nominal	2,000 mΩ	1 mΩ	±1% ±2 digits	4V nominal
2A nominal	20 mΩ	0.01 mΩ		40 mV nominal
General				
Display	3 ½-digit LED			
Operating Temp. Range	0° C to +50°C			
Storage Temp. Range	-20° C to +50°C			
Protection	Relay protected for up to 240V mains supply applied from C1/P1 to C2/P2. 100mA (T) fuse, 20mm x 5mm, ceramic for charging circuit			
Power Supply	4hA capacity NiCad rechargeable cells. Normal charge time of 10 hours on 120V, 60Hz mains supply			
Safety	IEC10101-1 (1992) EN61010-1 (1993)			
Dimensions/ Weight	9.6H x 13.5W x 6.25D, 10 lb (4.5kg)			

Each Unit Includes: Supply lead for battery charger, Duplex handspikes with 8ft (2.5m) leads, Operating instruction book

Ordering Information	
Description	**Order #**
BT51 Low Resistance Ohmmeter	BT51/120
Transcat Accredited Calibration	Call

Megger® DLRO10HD Heavy Duty 10A Low Resistance Ohmmeter

The user can select either low power 0.25W limited ranges to prevent test piece heating, or high power up to 25W ranges to heat a weakness or facilitate measuring inductive loads and withstand up to 600V between any terminals without even blowing a fuse.

- **High or Low Power Selection for Condition Diagnosis**
- **Rechargeable Battery or Line Power Operation**
- **Can Supply 10A for at Least 60 Seconds**
- **High Input Protection to 600V without Blowing Fuses**
- **Heavy Duty Case: IP65 Lid Closed, IP54 in Operation**
- **Easy Rotary Switch Operation Even with Gloved Hand**
- **Five Test Modes Including Auto Start on Contact**
- **Inductive Mode up to 10A**

Specifications					
Test Current	**Resistance Range**	**Resolution**	**Accuracy**	**Full Scale Voltage**	**Max. Power Output**
0.1mA	0 to 2,500.0Ω	100mΩ	±0.2% ±200mΩ	25mV	2.5µW
0.1mA	0 to 250.00Ω	10mΩ	±0.2% ±20mΩ	25mV	2.5µW
1mA	0 to 25.000Ω	1mΩ	±0.2% ±2mΩ	25mV	25µW
10mA	0 to 2,500.0mΩ	100µΩ	±0.2% ±200µΩ	25mV	250µW
100mA	0 to 250.00mΩ	10µΩ	±0.2% ±20µΩ	25mV	2.5mW
1A	0 to 25.000mΩ	1µΩ	±0.2% ±2µΩ	25mV	25mW
10A	0 to 2,500.0µΩ	0.1µΩ	±0.2% ±0.2µΩ	25mV	0.25W
1A	0 to 2,500.0µΩ	100µΩ	±0.2% ±200µΩ	2.5V	2.5W
10A	0 to 250.00mΩ	10µΩ	±0.2% ±20µΩ	2.5V	25W

Each Unit Includes: DH4 Duplex Handspike lead set (2), one with indicator lights, 1.2m / 4ft Test Lead Pouch (Lid Mounted) User guide CD (En, Es, Fr, De)

Ordering Information	
Description	**Order #**
DLRO10HD Low Resistance Ohmmeter	DLRO-10HD
Transcat Accredited Calibration	Call

Fluke 1507 Insulation Tester

Ideal for wire identification & general labeling applications.

- **Insulation Test Voltages: 50V, 100V, 250V, 500V, 1,000V for Many Applications**
- **Automatic Calculation of Polarization Index and Dielectric Absorption Ratio**
- **Compare (Pass/Fail) Function**
- **Remote Test Probe**
- **Live Circuit Detection Prevents Insulation Test if Voltage >30V is Detected**
- **Auto-Discharge of Capacitive Voltage**

- **AC/DC Voltage: 0.1V to 600V**
- **200mA Continuity**
- **Resistance: 0.01Ω to 20.00KΩ**
- **Auto Power Off**
- **CAT III - 1,000V, CAT IV - 600V Safety Rating**
- **Four AA Alkaline Batteries (NEDA 15A or IEC LR6) for at least 1,000 Insulation Tests (Not Included)**
- **One Year Warranty**

Each Unit Includes: Remote probe, test leads, test probes, alligator clips, holster, user documentation.

Ordering Information	
Description	**Order #**
Insulation Tester 0.01mΩ to 10GΩ	45516EL
Transcat Accredited Calibration	Call

Fluke 1550C/1555 Insulation Resistance Testers

Digital insulation testing up to 10kV.

- **Test Voltages up to 10kV Provides Solutions for all Applications**
- **CAT IV 600V Safety Rating**
- **Voltage Breakdown Detection Alerts the User that Voltage is Present and Gives the Voltage Reading up to 600V AC or DC for Increased User Safety**
- **Selectable Test Voltages in 50V Steps from 250 to 1000V, and 100V Steps 1000V**
- **Measurements can be Stored in up to 99 Memory Locations, with Each Location Assigned a Unique, User Defined, Label for Easy Recall**
- **Long Battery Life Gives the User Over 750 Tests Between Charges**
- **Automatic Calculation of Dielectric Absorption (DAR) and Polarization Index (PI) with no Additional Setup**
- **Guard System Eliminates the Effect of Surface Leakage Current on High-Resistance Measurements**
- **Capacitance and Leakage Current Measurement**
- **Ramp Function for Breakdown Testing**
- **Resistance Measurements up to 2 TΩ**
- **3-Year Warranty**

1555 ▲

Each Unit Includes: Test cables with alligator clips (red, black, green), Alligator clips, Infrared adapter with interface cable, FlukeView Forms basic CD-ROM, AC power cord, Soft carrying case, Users manual on CD-ROM, Quick Reference card, English manual, USB-IR cable installation guide, FlukeView Forms installation guide

Kit Includes: IP67 hard case instead of soft case, ruggedized alligator clips and certificate of calibration

Ordering Information	
Description	**Order #**
1550C 5kV Insulation Tester	1550C
1555 10kV Insulation Tester	1555
1550C 5kV Insulation Tester Kit	1550C/KIT
1555 10kV Insulation Tester Kit	1555/KIT
Transcat Accredited Calibration	Call

Wind Energy

Increase your operations efficiency with reliable, safe maintenance

Today's wind farms rely on strong operational efficiency. Regular maintenance and the time and safety of technicians are essential to successfully managing growing farms. With Fluke products, a technician can quickly service gearboxes and generators to reduce power production loss and lower operating costs.

Fluke tools are the most rugged and reliable tools available, giving technicians the ability to perform maintenance tasks more efficiently and safely while reducing costs and maximizing turbine uptime.

Fluke Ti32 and IR Windows CLKT

With the Fluke IR Windows CLKT and the Ti32 Thermal Imager, the traditional critical safety steps to inspect an electrical cabinet are significantly reduced. A single inspector can inspect and scan connections through the cabinet window, avoiding an arc flash and eliminating the need to de-energize the electrical gear or remove the cover. The considerable time difference, reduced personnel requirements, and cost savings are significant. **Page 69**

1555 Insulation Tester

The Fluke 1555, a powerful handheld insulation resistance tester, offers digital insulation testing up to 10 kV, making it ideal for testing a wide range of high-voltage equipment including switchgear, motors, generators, and cables. **Page 48**

Fluke 233 Remote Digital Multimeter and 381 Remote Clamp Meter with iFlex™

Safety is paramount and our new remote digital multimeters and clamp meters have removable displays that allow readings remotely to enhance technician safety. The Fluke 233 Digital Multimeter allows a technician to test hazardous areas without the need for help when reading the display. The new Fluke 381 Clamp Meter with iFlex also lets a single technician do jobs that used to require two people. **Page 54 & 57**

Wooster 3500 Wind Turbine Maintenance Kit

This rugged turbine maintenance kit contains the tools and safety systems needed to make even the toughest repair and coating jobs possible.

The kit features a broad assortment of prep and coating tools that safely connect to the tool bag when they're not in use or connect to an integrated working lanyard when an individual tool is needed. This system prevents tool drops from any height.

- **Kit Features Integrated Hooks and Lanyards to Keep Tools Safe and Secure**
- **Kit Contains an Assortment of 21 Prep and Coating Tools for Maintaining Wind Turbines**
- **Kit has Been Tested and Approved by Industry Leading Wind Turbine Technicians**

Each Unit Includes: Wind Turbine Maintenance Bag, Lanyard & Hook Kit, 18" Reaching Pole, Foam & Chip Brushes, Mini & Jumbo-Koter roller frames and roller covers (5), an assortment of surface Prep Tools (wire & brass brushes, scraper, sand paper & mounting head) and a mini roller & tray set

Field Tested

*Individual Items Available for Purchase

Ordering Information

Description	Order #
Wooster 3500 Wind Turbine Maintenance Kit	3500 Wooster

Megger® Wind DLRO-10HD Kit Heavy Duty 10A DLRO

Specific to the Wind Industry, this kit gives you heavy duty and lightning protection to get the job done.

- **High or Low Power Selection for Condition Diagnosis**
- **Rechargeable Battery or Line Power Operation**
- **Can Supply 10A for at Least 60 Seconds, Less Time Waiting to Cool, Great for Charging Inductance**
- **High input protection To 600 V, Inadvertent Connection to Line or UPS Voltage will not Blow a Fuse**
- **Heavy Duty Case: IP65 Lid Closed, IP54 in Operation (Battery Operation Only)**
- **Easy Rotary Switch Operation Even with Gloved Hand**
- **Five Test Modes Including Auto Start on Contact**
- **Inductive Mode up to 10A**

Each Unit Includes: DLRO-10HD, Kelvin clip and hook ends on heavy duty cable reel with friction break (100 meters long), a DH2 lead with duplex hand spike and hook end (5 meters long), Megger DLRO Booklet (DLRO-Book)

1000-809 ▶

Ordering Information

Description	Order #
DLRO-10HD Wind Kit	DLRO-10HD-WKIT

Fluke 87-V Industrial Multimeter

Large display digits and two level bright white backlight for increased visibility.

- **Unique Function for Accurate Voltage and Frequency Measurements on Adjustable Speed Motor Drives and Other Electrically Noisy Equipment**
- **True-RMS AC Voltage and Current for Accurate Measurements on Non-Linear Signals**
- **Built-in Thermometer Conveniently Allows You to Take Temperature Readings without Having to Carry a Separate Instrument**
- **Measure up to 1,000V AC and DC**
- **Measure up to 10A (20A for 30 Seconds)**
- **10,000 uF Capacitance Range**
- **Frequency to 200kHz and % Duty Cycle**
- **Peak Capture to Record Transients as Fast as 250µs**
- **4-1/2 Digit Mode (87-5, 87-5/2 Kit)**
- **Bright White Backlight for Viewing in Dark Areas**
- **Lifetime Warranty**

TLK225 SureGrip Master Accessory Kit Includes: Alligator clips (AC220), hook clips (AC280), pincer clips (AC283), large jaw alligator clips (AC285), Sharp test probes (TP220), right to straight test leads (TL224), Six pocket storage pouch and 9V batteries.

Ordering Information

Description	Order #
Industrial Digital Multimeter	Fluke-87-5
Industrial Electricians Combo Kit	65169MM
Transcat Accredited Calibration	Call

Fluke 1587 Insulation Multimeter

Combine a digital insulation tester with a full-featured, True RMS digital multimeter in a single, compact, handheld unit.

- **Live Circuit Detection Prevents Insulation Test if Voltage > 30V is Detected for Added User Protection**
- **AC/DC Voltage, DC MilliVolts, AC/DC Milliamps, Resistance (Ω), Continuity Beeper**
- **Capacitance, Diode Test, Temperature, Min/Max, Frequency (Hz)**

- **Auto Power Off to Save Battery Power**
- **CAT III 1,000V, CAT IV 600V Safety Rated**
- **K-Type Thermocouple**
- **Filter for Motor Drive Measurements**
- **Three Year Warranty**

Each Unit Includes: Remote probe, test leads, alligator clips, K-type thermocouple (1587 only), hard case, user documentation.

Ordering Information

Description	Order #
Insulation Multimeter	65101MM

Fluke 289 Digital Multimeter

True-RMS Industrial logging multimeter with TrendCapture.

- **50,000 Count, 320 x 240 Dot Matrix LCD Display with White Backlight**

- **0.025% Basic DC Accuracy**

- **Multiple Sets of Measurement Information are Now Available in this Easy-to-Read Display**

- **Data Logging Function Allows You to Monitor Unattended While You Work on Other Projects**

- **Internal Memory Allows Stand-Alone Logging for up to 200 Hours**

- **Optical USB PC Communication Interface Allows for Easy PC Download to Document Logged Data with FVF Software (Not Included)**

- **LoZ: Low Input Impedance Function Helps Prevent False Readings Due to "Ghost Voltage"**

- **50 Ohm Range for Motor Winding and Low Ohm Measurements**

- **CAT III 1,000V / CAT IV 600V Safety Rated**

- **Limited Lifetime Warranty**

Ordering Information

Description	Order #
True-RMS Industrial Logging Multimeter with TrendCapture	289
Fluke 289 VIP KIT	289-VIP
Transcat Accredited Calibration	Call

Each Unit Includes: Getting started manual, six AA batteries, TL71 silicone test leads, AC72 alligator clips, and a CD-ROM (user manual and technical notes).

Fluke 179 True RMS Digital Multimeter

A versatile meter for field service or bench repair.

- **6,000 Count Display**

- **Auto Hold and Manual Hold**

- **Min/Max/Avg**

- **Backlight**

- **Temperature Measurements in °C and °F**

- **Battery Access Door**

- **Compatible with Fluke ToolPak™ Meter Hanging Kit**

- **IEC 1010 Rating: CAT IV 600V / CAT III 1,000V**

Each Unit Includes: Test leads, 9 Volt batteries and user manual, 80BK-A Temperature Probe Approvals: CAT IV 600V, CAT III 1,000V, CSA, CE, TUV, UL

Ordering Information

Description	Order #
Fluke 179 True RMS Digital Multimeter	179E
Transcat Accredited Calibration	Call

Fluke 233 True RMS Wireless Display Digital Multimeter

The Fluke 233 remote display digital multimeter allows you to be 30 ft away from the measurement point with the innovative wireless display. With the 233, you can perform two man jobs alone and remove the hazard from the job.

- **Removable Display Gives the User Ultimate Flexibility in Unusual Measurement Scenarios**

- **Place the Display Where You can See it and then put the Meter Where it is Convenient for You—No More Juggling of Leads and the Meter While Stretching into a Tight Spot**

- **Removes the Dilemma of Trying to Take Measurements in Hard-to-Reach Places, or Making Measurements in Machines or Panels that are Physically Separated from a Limit or Isolator Switch**

- **Can be Used in Areas Where the Operator Can't be Close to the Active Measurement Point, Like Clean Rooms or Hazardous Areas**

- **Low Power Wireless Technology Allows the Display to be Carried up to 10 Meters (33 Ft) Away From the Point of Measurement for Added Flexibility. No Interference with Measurements**

- **The Removable Magnetic Display can be Conveniently Mounted Where it is Easily Seen**

- **Make Measurements Without Holding the Meter to Improve Visual Focus on Probes and Augment Safe Electrical Measurements**

- **Use as a Conventional Multimeter when the Display is Connected**

- **Radio Transmitter Automatically Turns Off when the Display is Connected to the Meter**

- **Auto Power Off Maximizes Battery Life**

- **Min/Max and Average Recording to Capture Variations Automatically**

- **Test Continuity and Diodes**

- **Easy to Read Display with Large Digits and Bright Backlight**

- **Battery Life Approximately 400 Hours**

Each Unit Includes: Holster, Test leads, Manual, Alligator Clips and Batteries

Ordering Information

Description	Order #
True RMS Wireless Display Digital Multimeter	233
Transcat Accredited Calibration	Call

Agilent U1270 Series Handheld Digital Multimeters

Shaped to fit, tailored to perform, built to last.

- **Improved Accuracy and Resolution to Meet Traditional Industrial Requirements (30,000 Counts Resolution with 0.05% for DCV Accuracy)**

- **Intelligent Features to Improve Productivity and Safety (LPF, ZLOW, Smart Ohm - U1272A), (Selectable Low Pass Filter LPF and Quick Signal Type Identification Qik-V - U1271A)**

- **Both Visual and Audible Continuity Indication**

- **Easy Access to Fuse for Simplified Maintenance**

- **Easy Connectivity to PC and Internal Memory (up to 200 Points - U1271A and 10,000 Points - U1272A) for Data Logging**

- **Large Rotary Switch and Buttons that are Easy to Operate**

- **Dust and Water Resistant Casing (IP 54 Compliant)**

U1272A ▶

Each Unit Includes: Standard Test Leads, Test Probes with 4-mm Tips, K-Type Thermocouple and Adapter, 4x AAA Batteries, Certificate of Calibration, Test Report, Quick Start Guide

Ordering Information

Description	Order #
U1271A 4½ Digit Handheld Digital Multimeter	U1271A
U1272A 4½ Digit Handheld Digital Multimeter	U1272A

Fluke 789 ProcessMeter™

Save time and equipment costs by incorporating a meter and a loop calibrator into one instrument.

- **Inputs Protected to Meet 1,000V IEC 1010 CAT III**
- **Precision 1,000V, 440 mA True-RMS Digital Multimeter**
- **Frequency Measurement to 20kHz**
- **Min/Max/Average/Hold/Relative Modes**
- **Diode Test and Continuity Beeper**
- **Simultaneous mA and % of Scale Readout**
- **20 mA DC Current Source /Loop Calibrator /Simulator**
- **Manual Step (100%, 25%, Coarse, Fine) plus Auto Step and Auto Ramp**
- **Externally Accessible Battery for Easy Battery Changes**

- **24V Loop Power Supply**
- **HART Mode Setting with Loop Power (Adds 250 Ω Resistor)**
- **100% Larger Dual Display**
- **1,200 Ω Drive Capability on mA Source**
- **Enhanced Backlight with Two Brightness Settings**
- **0-100% mA Span Check Buttons to Toggle between 4 and 20 mA**
- **Infrared I/O Serial Port Compatible with FlukeView® Forms Software Version 2.1**
- **Inputs Protected to Meet EN61010 CAT IV 600V**

Each Unit Includes: TL75 Test Leads, AC72 Alligator Clips, Four Alkaline AA batteries (Installed), User's Manual and Quick Reference Guide.

Ordering Information

Description	Order #
Fluke 789 ProcessMeter	789E
Transcat Accredited Calibration	Call

Tegam 110 Safety Voltmeter

Integral probe holder permits safe, easy, two-hand operation with accuracy of 0.2% and 1V resolution.

- **Automatic ACV, DCV Selection, and Polarity Display**
- **Range: 1,000V**
- **Overload Warning Over 999V**
- **Power-Off and Low-Battery Protection**
- **Splashproof and Dustproof**
- **Withstands 6' Drop to Concrete**

Specifications

Mfg #	110A
Volts AC & DC (±)	1,000
Accuracy	± (0.2% rdg + 1 volt) DC and 50/60 Hz
Input Resistance	10MΩ
Overload Test Voltage TRMS (<5 sec.)	2,500
Rejection of Capacitive Coupled Inputs	NA
Continuity Tests	NA
Display	0.5" LCD, 3-1/2 digits,
Size	6.3" x 2.7" x 1.2"
Weight	12 oz.
Warranty	One year

Ordering Information

Description	Order #
Safety Voltmeter	4344E
Transcat Accredited Calibration	Call

Recommended Accessories

Alligator Clip Adapter	12501T
Probe Adapter Kit	12502T
Leather Utility Belt Carrying Case	4504E

AEMC• 400/600 Series Clamp-On Meters

The ONLY CAT IV, 1000V clamp-on on the market.

- 1000 V CAT IV and IP54 Rated
- Jaw Opening up to 2.36"
- 10,000 Count Blue Backlit Display
- Records up to 1000 Measurements
- TRMS Measures up to 1000V AC, DC and AC+DC with Resolution to 10mV
- Measures up to 2000 Amps AC, 3000 Amps DC
- Display Shows 3 lines of Measurements Simultaneously

- Measures Single and Three Phase Power up to 3MW with Resolution to 1W
- Displays Three Measurements Simultaneously
- Measures Frequency to 20kHz with 0.1Hz Resolution (Model Dependent)
- InRush Current Measurement with 1mS Capture, True InRush
- Measures up to 1000V AC or DC

- Measures Harmonics up to the 25th
- Phase Rotation Indication
- Approved by UL, CSA, VDE, GS (TUV)
- RoHS Compliant
- Continuity Buzzer (>40Ω)
- BlueTooth Communications (Models 407 & 607)

607 ▶

Ordering Information

Description	Order #
Model 401 1000/2000A, 1000V Clamp Meter	2139.20
Model 403 600/1000/2000A, 1000V Clamp Meter	2139.21
Model 405 600/1000/2000A, 1000V Clamp Meter	2139.50
Model 407 1000A, 1000V Clamp Meter	2139.51

Ordering Information

Description	Order #
Model 601 1000/2000A, 1000V Clamp Meter	2139.30
Model 603 600/1000/2000A, 1000V Clamp Meter	2139.31
Model 605 600/1000/2000A, 1000V Clamp Meter	2139.60
Model 607 2000A, 1000V Clamp Meter	2139.61
Transcat Accredited Calibration	Call

Transcat Complete Tool Kits.
Save Time, Money & Hassle

Technicians Tool Kit

Other Kits Available

Service and Maintenance Kit   Blade Repair Kit   Site Kit   Commissioning Kit

Torque Wrenches
Multimeters
Hand Tools
Process Tools
DLROs®
TTRs™
Chisels / Prybars
Electric Power Tools
Extension Cords

Insulation Testers
Files & File Sets
PPE
Gloves
Measuring Tools
Eye Protection
Fall Protection
See page 51 for more details.

WRIGHT TOOL   STAHLWILLE   Megger.   FLUKE.

For more information: *Call 800.779.5289 or visit Transcat.com/windenergy*

Fluke 300 Series Current Clamps

Clamps provide the ideal measurement flexibility for electricians by providing all of the measurements needed, without having to reach for another tool.

- Measure Large AC Currents, AC and DC Voltage, Resistance, Continuity, and with Some Models DC Current, Capacitance, Temperature, Frequency and More

- Typically Measure to The Nearest Tenth of a Unit, Making Them Perfect for Electrical Work

- Measure Current of a Wire at Any Point in The Electrical System Without the Need to Break the Connection or Use Adapters or Scaling Factors

376

381

NEW

Removable Display!

i-FLEX

Specifications and Ordering Information

Mfg #		Fluke 365	Fluke 373	Fluke 374	Fluke 375	Fluke 376	Fluke 381
AC Current	Range	200.0 A	600.0 A	600.0 A	600.0 A	1000.0 A	1000.0 A
AC Type	True-rms					X	
DC Current	Range	200.0 A	—	600.0 A	600.0 A	1000.0 A	1000.0 A
AC Voltage	Range	600.0 V	600.0 V	600.0 V	600.0 V	1000.0 V	1000.0 V
DC Voltage	Range	600.0 V	600.0 V	600.0V	600.0 V (500mV)	1000.0 V (500mV)	1000.0 V
Resistance	Range	1000 Ω	6000.0 Ω	6000.0 Ω	60000.0 Ω	60000.0 Ω	60000.0 Ω
Frequency	Range	—	—	—	500.0 Hz	500.0 Hz	500.0 Hz
Capacitance	Range	—	1,000 uF	1,000 uF	1,000 uF	1,000 uF	—
Special Features	Continuity	X	X	X	X	X	X
	Hold	X	X	X	X	X	X
	Backlight	X	X	X	X	X	X
	Min/Max	—	—	X	X	X	X
	Inrush	—	—	X	X	X	X
	Low Pass Filter	—	—	—	X	X	X
	Detachable Remote Display	—	—	—	—	—	X
	Build in spotlight	X	—	—	—	—	
	Removable wireless display	—	—	—	—	—	X
	18 in iFLEX Flexible Current Probe	—	—	Accessory	Accessory	Included	Included
	10 in iFLEX Flexible Current Probe	—	—	Accessory	Accessory	Accessory	Accessory
Safety Rating	CAT III 600 V, CAT IV 300 V	X	X				
	CAT III 1000V, CAT IV 600V			X	X	X	X
Order #		365-VIP	373-VIP	374-VIP	375-VIP	376-VIP	381-VIP
Transcat Accredited Calibration						Call	

Ordering Information

Description	Order #
IFLEX 2500A Probe 18"	I-2500-18
IFLEX 2500A Probe 10"	I-2500-10

Fluke Current Clamps

VIP Kit

1AC-a1 voltage detector

$26 VALUE

Buy any Fluke Current Clamp VIP Kit below and Receive

UGLY's Electrical Book
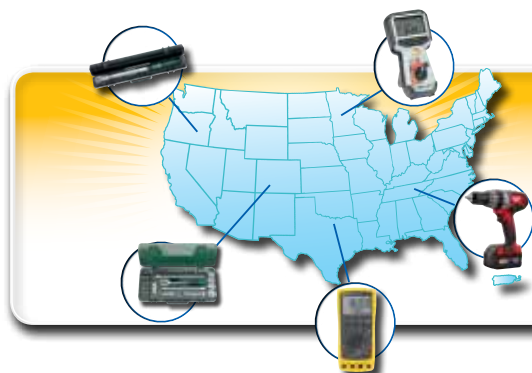
$19 VALUE

FREE!

SAVE $45

Improve your Tool Tracking through
Transcat's Asset Management System:
CalTrak® Online

Call 1.800.779.5289 or visit Transcat.com/windenergy

Megger® DET14C and DET24C Clamp-On Resistance Testers

These instruments induce a test current into earth systems and measure ground resistance in multi-ground installations without needing to disconnect the ground.

DET14C Features and Benefits

- **39 x 55mm Elliptical Head**
- **Low Maintenance Flat Jaw Design**
- **Ground Resistance Range 0.05Ω - 1500Ω**
- **AC Current Range 0.2mA to 35A rms**
- **24 Hour Battery Life Based on Continuous Test at 25Ω, no Backlight**
- **CAT IV 600V Safety Rating**
- **Backlight Display**

DET24C Additional Features

- **IrDA to USB Interface for Download**
- **Memory - 2k records (256 for DET14C)**
- **Megger PowerDB/PowerDB Lite™ Compatible**

DET24C ▶

Ordering Information	
Description	**Order #**
Earth/Ground Clamp-on Resistance Tester	DET14C
Earth/Ground Clamp-on Resistance Tester with IrDA to USB Interface	DET24C
Transcat Accredited Calibration	Call

Megger® DET4TD2 Digital 2, 3 and 4 Point Ground Tester

High quality four point soil resistivity and ground tester with kit and carrying case.

- **IP54 Rated**
- **2, 3 and 4 Point Ground Tester**
- **Selectable 25V or 50V Output**
- **Dry Cell or Rechargeable Versions**
- **Simple, One Button Operation**
- **Robust Carrying Case**
- **Complete with Calibration Certificate**
- **Variable Frequency Output**

▲ **DET4TD2**

Each Unit Includes: Ground tester, Hard Carrying Case, Stake and Wire Kit (15m, 10m, 3m), External AC/DC Charger (Rechargeable Version Only)

Specifications			
Ingress Protection	IP54		
P & C Spike Check	Automatic	**Display**	3 ½ High Contrast LCD
Noise Check	Automatic	**Battery Type**	Eight Standard AA
Noise Rejection	40V pk to pk	**Operating Temperature Range**	-15° C to 55° C 5° F to 131° F
Two Wire Test		**Storage Temperature Range**	-40°C to 70° C
Three Wire Test	Yes		-40° F to 158° F
Four Wire Test		**Safety**	Complies with EN61010-1 100V CAT IV
Resistance Range	0.01Ω to 20kΩ	**Dimensions**	203 x 148 x 78mm
Resistance Accuracy	2.0% ± 3 digits		8 x 5.8 x 3"
Earth Voltage Range	0 – 100V	**Weight**	1 kg (2.2 lbs)
Earth Voltage Accuracy	2% =/- 2V		

Ordering Information	
Description	**Order #**
Digital Ground Tester Basic Kit	45441EL
Digital Ground Tester Basic Kit (Rechargeable)	45884EL
Transcat Accredited Calibration	Call

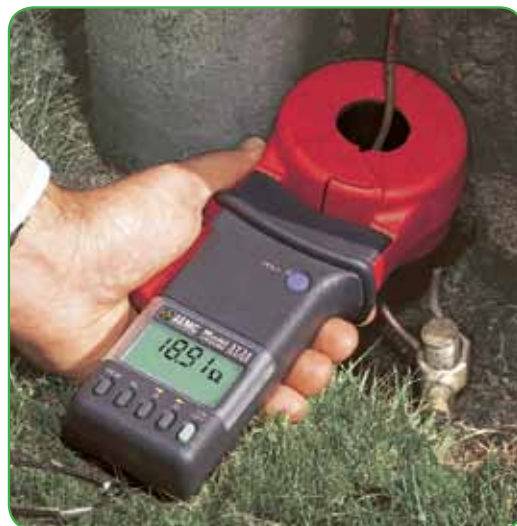# AEMC• 3711/3731 Clamp-On Ground Resistance Testers

Simple and fast clamp-on operation - no leads, no auxiliary rods or spacing requirements.

- **Direct Reading of Ground Resistance from 0.1 to 1,200Ω**
- **Direct Reading of Continuity and Ground Loop Resistance**
- **Direct Reading of Ground Leakage or Phase Current from 1mA to 30 Arms**
- **Jaw Design with Large 1.25" (32 mm) Window-Accommodates up to 1,000 kcmil Cables**
- **Patented Design**

The 3731 is a "deluxe" model, which includes an alarm mode, which signals audibly and visually if your reading is above or below the set point. Built-in non-volatile memory allows storage and recall of up to 99 current or resistance measurements. This unit includes a one-year warranty and has UL approval. Noise Immunity has been greatly improved through use of higher frequency for the test voltage.

Each Unit Includes: 25Ω calibration loop, hard carrying case, 9V Alkaline battery, and user manual.

Approvals: EN 61010-1, CAT II 300V, CAT III 150V

Ordering Information

Description	Order #
Model 3711 Clamp-On Ground Resistance Tester	5717E
Model 3731 Clamp-On Ground Resistance Tester with Alarm and Memory	5718E
Transcat Accredited Calibration	Call

AEMC• 6472 Multi-Function Ground Resistance Tester

Measure ground resistance, soil resistivity and bonding resistance with one instrument!

- **Two and Four Wire Bond Resistance/ Continuity Measurement (DC Resistance) with Automatic Polarity Reversal**
- **Three Pole (3-Point) Fall-of-Potential Measurement with Manual or Automatic Frequency Selection**
- **Four Pole (4-Point) Fall-of-Potential Measurement for Very Low Resistance Measurements with Manual and Automatic Frequency Selection and Automatic Lead Compensation**
- **Four Pole (4-Point) Soil Resistivity Measurement with Automatic Calculation of Rho (Þ)**
- **Three Pole (3-Point) Earth Coupling Measurement**
- **Manual and Automatic Frequency Scan from 41 to 5078Hz for Optimum Test Accuracy in Electrically Noisy Environments**
- **Selectable Test Voltage of 16 or 32V up to 250mA of Test Current**

- **Automatic Recognition of All Electrode Connections and Their Resistance Value**
- **Stores up to 512 Complete Test Results Internally**
- **Optically Isolated USB Communication**
- **Remote Set up and Operation of all Functions Using DataView® Software**
- **Rechargeable NIMH Batteries from Wall Charge or Vehicle Power**
- **Rugged Dustproof and Rainproof Field Case – IP54 Rated in Closed Position**
- **Grounding Standards IEC 61557 Parts 4 and 5 Compliant**
- **Includes DataView® Software for Data Storage, Real-Time Display, Analysis, Report Generation and System Configuration**

Each Unit Includes: Rechargeable NiMH batteries, optical USB cable, power adapter 110/240V with power cord 115V US, two 150-500 ft (depending on Catalog#) color-coded leads on spools (red/blue), two 100 ft color-coded leads (hand-tied, green/black), one 30 ft lead (green), four T-shaped auxiliary ground electrodes, set of five spaded lugs, one 100 ft AEMC® tape measure, DataView® software, carrying bag for meter and a user manual.

Test Kit

Ordering Information

Description	Order #
Ground Resistance Tester Model 6472 Kit – 300 ft	2135.53
Transcat Accredited Calibration	Call

AEMC• Digital Ground Resistance Testers

Designed to reject high levels of noise and interference.

- **Measures Soil Resistivity (4-Point)**
- **Measures Ground Resistance (2- and 3-Point) Fall-of-Potential Method**
- **Step Voltage Tests and Touch Potential Measurements**
- **Auto-Ranging: Automatically Selects the Optimum Range**
- **Extremely Simple to Operate: Connect – Press – Read**
- **Color-Coded Terminals**

- **LED on Faceplate Informs Operator of High Input Noise, High Auxiliary Rod Resistance and Fault Connections**
- **Large Easy-to-Read Backlit Display**
- **Battery Powered (Model 4620)**
- **Rugged Dustproof and Rainproof Field Case**
- **Can Also be Used for Continuity Tests on Bonding**

4620

Test Kit

Catalog # 2135.35 - Test Kit for 3-Point testing includes two 150' color-coded leads on spools (red and blue), one 30' lead (green), two 14.5" T-shaped auxiliary ground electrodes, one set of five fork terminals, 100' tape measurer and carrying bag.

Catalog # 2135.36 - Test Kit for 4-Point testing includes two 300' color-coded leads on spools (red and blue), two 100' color-coded leads (green and black), four 14.5" T-shaped auxiliary ground electrodes, one set of five fork terminals, 100' tape measurer and carrying bag.

Catalog # 2135.37 - Test Kit for 4-Point testing includes two 500' color-coded leads on spools (red and blue), two 100' color-coded leads (green and black), one 30' lead (green), four 14.5" T-shaped auxiliary ground electrodes, one set of five fork terminals, 100' tape measurer and carrying bag.

Ordering Information	
Description	**Order #**
Ground Resistance Tester Model 4620 (4-Point, Digital, Battery Powered)	2130.43
Ground Resistance Tester Model 4620 Kit - 150' (Model 4620 and Catalog # 2135.35)	45583EL
Ground Resistance Tester Model 4620 Kit - 300' (Model 4620 and Catalog # 2135.36)	2135.20
Ground Resistance Tester Model 4620 Kit - 500' (Model 4620 and Catalog # 2135.37)	45584EL
Ground Resistance Tester Model 4630 Kit - 300' (Model 4630 and Catalog # 2135.36)	2135.23
Transcat Accredited Calibration	Call

Fluke 1621 Earth Ground Tester

A rugged, easy-to-use tester for three-pole ground resistance measurements and two-pole AC resistance measurements.

- **3-Pole Fall-of-Potential Earth Testing for Basic Measurements**
- **2-Pole Resistance Measurements for Added Versatility**
- **Easily Capture Values with Single-Button Operation**
- **Ensure Accurate Measurements with Automatic 'Noise' Voltage Detection**
- **Hazardous Voltage Warning Offers Increased User Protection**
- **Clearly Read and Record Data With a Large, Backlit Display**
- **Rugged Holster and Design for Tough Work Environments**
- **Portable Size Allows for Easy Transportation**
- **Instantly be Alerted to Measurements Outside of Your Set Limit, When You Use the Adjustable Limit Setting**
- **600V CAT II**

Each Unit Includes: Users manual, Two measuring leads with alligator clips 2 m (6 ft), One battery, 9 V alkaline (LR61), One protective holster, yellow, and One CD-ROM.

Ordering Information	
Description	**Order #**
Earth Ground Tester	45971EL
Transcat Accredited Calibration	Call

Fluke 1625/1623 Earth Ground Testers

Offer an innovative solution, called Stakeless testing, along with additional advanced features to make your earth ground loop resistance testing quicker and easier.

Features 1625/1623

- 2 and 3 Pole Fall of Potential (Using Stakes)
- 4 Pole Soil Resistivity Testing (Using Stakes)
- Selective Testing (Using One Clamp and Stakes)
- Stakeless Testing (Using Two Clamps Only)
- Easy to Use
- Large, Clear Display and Oversized Test Buttons Make the Fluke-1625 and Fluke-1623 User Friendly
- For Each Test, the Testers Inform You which Stakes or Clamps Need to be Connected
- Both Models Have an IP56 Rating, Suitable for Outdoor Use
- Designed for Tough Environmental Conditions

Additional Features of the 1625

- Automatic Frequency Control (AFC) – Identifies Existing Interference and Chooses a Measurement Frequency to Minimize its Effect
- R* Measurement, Earthing Impedance with 55 Hz – for Short Circuit Current in Power Distribution System
- Adjustable Limits – for Quicker Testing

Ordering Information

Description	Order #
Advanced GEO Earth Ground Tester Kit	45592EL
Advanced GEO Earth Ground Tester	45593EL
Basic GEO Earth Ground Tester Kit	45594EL
Basic GEO Earth Ground Tester	45595EL
Transcat Accredited Calibration for 1623	Call

1625 ▲

◀ 1625 Kit

Each Unit Includes: Test leads and alligator clips.

Each 1625 Kit Includes: 1625 tester, test leads, four earth ground stakes, three cable reels with wire, two clamps, batteries, and manual – all inside a rugged Fluke carrying case.

Each 1623 Kit Includes: 1623 tester, test leads, four earth ground stakes, three cable reels with wire, two clamps, batteries, and manual – all inside a rugged Fluke carrying case.

Fluke 1630 Earth Ground Clamp Meter

Measure earth ground loop resistance anywhere. Quickly and easily.

- Quick and Easy to Use – No Earth Ground Stakes are Necessary
- Large, 35mm (1.38") Jaw Opening
- Measures Ground Resistance from 0.025 to 1,500Ω
- Measures Ground Leakage Current from 0.2 to 1,000mA
- AC Current Measurement from 0.2A to 30A
- High and Low Alarming

- Automatic Self Calibration
- Rugged Carrying Case and Resistance Check/Calibration Loop Included
- Continuity Loop Test with Audible Alarm
- Display Hold
- Stores Measured Values
- Power Saving Auto-Off

Ordering Information

Description	Order #
1630 Earth Ground Clamp Meter	45831EL
Transcat Accredited Calibration	Call

Fluke 1AC-A1-II AC Voltage Detector

Continually tests its battery and its circuit integrity with a periodic double flash visual indication using Fluke Voltbeat™ Technology

- **The 1AC-II is Category IV – 1000V Overvoltage Rated Products for Added User Protection, the Highest Rated of Their Kind**
- **Voltage Detection of 90 to 1000V AC, as Well as a 24 To 1000V AC Control Circuit Model**
- **Rugged, Reliable, and have a Two-Year Warranty**

Ordering Information

Description	Order #
AC V Detector 90-1000V	45525EL
Volt Alert, 5-Pack	45526EL

Megger® TPT220 Voltage Tester

The Megger TPT220 voltage tester provides electricians and electrical engineers with voltage indication but has additional functions that make the instrument truly versatile.

- **AC and DC Voltage from 6 to 1000V**
- **Resistance / Continuity (Acoustically)**
- **RCD Function Test**
- **Two Pole Phase Sequence Indication**
- **LCD Display**
- **CAT IV 1000V Rating**
- **On / Off Switch**
- **Exhausted Battery Warning Indicator**
- **Spare GS38 Tips Included**
- **Auto Power Off**

Ordering Information

Description	Order #
TPT220 Voltage Tester	TPT220

AEMC® 275HVD High Voltage Detector Kit

Designed for use with hot sticks incorporating a universal spline adapter.

- **Non-Contact High Voltage Detector**
- **Wide Range of Detection; 80V to 275kV; One Instrument Fits All Applications**
- **Eight Switch-Selectable Voltage Sensitivity Ranges**
- **Lightweight, Minimizes Sway at the End of Long Hot Sticks**
- **Audible and Visual Indication of Live Voltage**
- **Self-Test Ensures that All System Functions and Indicators are Working Properly by Energizing the Complete System**
- **Digital Filter Rejects Signals Outside of 40 to 70Hz**
- **6' Fixed Length Hot Stick**

Each Unit Includes: Hard carrying case, three 1.5V C cell batteries, shotgun adapter, and user manual.

PMS6

275HVD

Ordering Information

Description	Order #
High Voltage Detector Kit	2131.12-KIT
Non-Contact High Voltage Detector (240V to 275kV) Manual Self-Test	2131.12
Fixed Length Hot Stick, 6'	S6

Why Purchase a New Instrument Calibration from TRANSCAT®?

Why Calibrate?

The only way to ensure with 100% certainty that your new instrument is performing accurately within the manufacturer's specifications is to have it calibrated.

✔ **Reduce Risk**
  - If your instrument is not providing accurate readings, you risk process failures, production delays, compromised safety, and product defects. Eliminate this risk by purchasing a Transcat Calibration with your new instrument.

✔ **Meet Quality Standards**
  - With a new instrument calibration, you will have the documented accuracy that complies with your quality systems and regulatory requirements – from the day it arrives.

  - You can count on Transcat to deliver quality calibrations you can trust. Transcat's quality systems are ISO 9001:2000 compliant, and we have earned the widest scope of ISO/IEC 17025 accreditation in the industries we serve.

✔ **Save Time**
  - Why waste time sending your new instrument out for calibration after it arrives? Transcat can provide an accredited calibration for most of the products we sell, before they ship to you. Your new instrument will be ready to use as soon as you receive it!

Order a Transcat Calibration with Your New Instrument Purchase

For more information Call: **800.779.5289**

GE Druck DPI 104/DPI 104 IS Digital Pressure Gauges

Combines precision and functionality in a compact, robust and simple to use package.

- **Dial and Stem Rotate Separately – Permits More Viewing Options**

- **0.05% Full Scale Accuracy**

- **Pressure Ranges to 20,000PSI (1400 bar)**

- **Temperature Compensated Accuracy**

- **IDOS Compatible with RS-232 Interface and Networking Capability**

- **Intrinsically Safe (DPI104 IS)**

- **ATEX, IECEx, cETL (Canada) (DPI104 IS)**

More Ranges @ Transcat.com

DPI 104 ▶

IS Intrinsically Safe

DPI 104 IS New Boot ▲

Ordering Information

Description	Order #
10 PSI, Gauge, ¼" NPT Male, Accuracy - 0.15% FS	95480PR
30 PSI, Gauge, ¼" NPT Male, Accuracy - 0.05% FS	95481PR
100 PSI, Gauge, ¼" NPT Male, Accuracy - 0.05% FS	95482PR
20,000 PSI, Sealed Gauge, 9/16 x 18UNF Male Cone, Accuracy - 0.05% FS	95483PR
Intrinsically Safe 10 PSI, Gauge, ¼" NPT Male, Accuracy - 0.15% FS	95884PR
Intrinsically Safe 100 PSI, Gauge, ¼" NPT Male, Accuracy - 0.05% FS	95887PR
Intrinsically Safe 100 PSI, Absolute, ¼" NPT Male, Accuracy - 0.05% FS	95888PR
Intrinsically Safe 1,000 PSI, Gauge, ¼" NPT Male, Accuracy - 0.05% FS	95891PR
Intrinsically Safe 1,000 PSI, Absolute, ¼" NPT Male, Accuracy - 0.05% FS	95892PR
Intrinsically Safe 5,000 PSI, Sealed Gauge, ¼" NPT Male, Accuracy - 0.05% FS	95894PR
Intrinsically Safe 10,000 PSI, Sealed Gauge, ¼" NPT Male, Accuracy - 0.05% FS	95895PR
Transcat Accredited Calibration	Call

Transcat Hydraulic 10,000 PSI Pump

Stainless Steel construction for no leaks or rust.

- **Use with Water or Oil**

- **Stainless Steel and Glass Construction - No Leaks or Rust**

- **Quick High Pressure Priming**

- **Optional Service/Seal Kit and Relief Valves**

Each Unit Includes: 1/4" FNPT Adapter Fittings and Instructions.

Ordering Information

Description	Order #
Transcat Hydraulic Hand Pump	23614P
15,000 PSI Hydraulic Pump	23625P
Pressure Relief Valve 150—750 PSI (500 PSI)	23615P-1
Pressure Relief Valve 750—3000 PSI (2000 PSI)	23615P-2
Pressure Relief Valve 3000—6000 PSI (5000 PSI)	23615P-3
Pressure Relief Valve 6000—10000 PSI (7500 PSI)	23615P-4
10,000 PSI Tubing/Fittings Kit (4 Ft)	23638P
6,000 PSI Tubing/Fittings Kit (3 Ft)	5854P-3

Fluke 51 Series II and 52 Series II Contact Thermometers

Fluke 50 Series II contact thermometers offer fast response and laboratory accuracy (0.05% + 0.3° C) in a rugged, hand-held test tool.

- **Large, Bright, Backlit Dual Display**
- **MIN, MAX, and AVG with Relative Time Clock**
- **Easy to Set up and Operate**
- **Battery Life Typical 1,000-Hour**
- **Readout in °C, °F, or Kelvin (K)**
- **Rugged Splash and Dust Resistant Case**
- **Optional ToolPak™**
- **Three-Year Warranty**
- **Measures J, K, T, and E-Types Thermocouples**

52-2 ▶

Ordering Information	
Description	**Order #**
Digital Contact Thermometer, Dual Input	52-2T
Digital Contact Thermometer, Single Input	51-2T
Transcat Accredited Calibration	Call

Fluke SureGrip™ Temperature Probes

Applies to All Temperature Probes:

Add utility to your multimeters and measure temperature. For meters with temperature function such as the 116, 179, 187, 189 and 1587 use the 80AK DMM Adapter with a contact probe. To add temperature to your multimeter, use the 80TK Thermocouple Module, plus a probe.

80PK-27

Applies to SureGrip™ Temperature Probes:

The innovative SureGrip™ design from Fluke is available in select temperature probes. The soft rubber handle combined with an ergonomic shape is so comfortable to hold that you'll forget about the probe and focus on the measurement. All SureGrip™ probes have an improved, more flexible strain relief for a long life.

80PK-24

SureGrip™ 80PK-27 Industrial Surface Probe

- Heavy duty industrial grade probe
- For flat or slightly curved surfaces
- Low conductivity stainless steel housing minimizes thermal shunting
- Compatible with K-Type instruments
- Measurement range: -127˚ to 600˚C (-196˚ to 1112˚F)
- 8" probe made from 300 stainless steel

SureGrip™ 80PK-24 Air Probe

- Perforated baffle around the measurement bead for air and non-caustic gas measurements
- Compatible with K-Type instruments
- Measurement range: -40˚ to 816˚C (-40˚ to 1500.8˚F)
- 8.5" probe made from Inconel

Ordering Information	
Description	**Order #**
SureGrip™ 80PK-24 Air Probe	80PK-24
SureGrip™ 80PK-27 Industrial Surface Probe	80PK-27
Transcat Accredited Calibration	Call

Fluke 63 Infrared Thermometer

This handheld portable tool enables professionals to research heating and ventilation problems, monitor the status of electrical motors and electrical panels.

- **High accuracy: 1% and Repeatability: 0.5%**
- **Backlit Display for Poorly Lit Areas**
- **Holds Temperature Readings**
- **Enhanced Optics (Distance to Spot Ratio up to 50:1) Allow You to Measure Smaller Objects from Farther Away**

- **Rugged Rubber Over-Molding**
- **Temperature Range 32°C to 535°C (-25°F to 999°F)**
- **Distance to Spot Size 12:1**
- **Emissivity Pre-set to 0.95**
- **Response Time 500 mSec**

Ordering Information

Description	Order #
Fluke 63 Infrared Thermometer	98143TE

Fluke 566 and 568 Infrared Thermometers

Goes beyond other IR thermometers to help you work more efficiently in more applications.

- **Measures -40° F to 1200° F (566), -40° F to 1470° F (568)**
- **Measure Smaller Objects from Further Away, with a Distance-to-Spot Ratio of 30:1 (566), 50:1 (568)**
- **Compatibility with Most Type-K Thermocouples Allows You to Preserve Your Thermocouple Investment**
- **Confidently Measure Any Type of Surface, with the Adjustable Emissivity Feature, Including a Built-In Material Table**
- **Log up to 20 Measurements for Accurate Reporting (566)**
- **Log and Download up to 99 Measurements (568)**
- **Trend and Analyze Your Results with the Included FlukeView® Forms PC Software (568)**
- **Easily Adapt to Lighting Conditions with Two Levels of Backlight**
- **Audible and Visual Alarms Instantly Alert You to Measurements Outside of Set Limits**
- **MIN, MAX, AVG, and DIF Functions**
- **Includes KTC Bead Probe**
- **Troubleshoot Equipment, with 1% Measurement Accuracy**

568 ▲

Ordering Information

Description	Order #
566 Infrared Thermometer	98579TE
568 Infrared Thermometer	98580TE
Transcat Accredited Calibration	Call

Fluke Calibration 4180, 4181 Precision Infrared Calibrators

True infrared traceability and a six-inch target make these the most accurate and versatile 0.95 black bodies on the market.

- **Temperature Range: –15°C to 500°C**
- **Big Six-Inch Target Accommodates all Manufacturers' Recommended Calibration Geometries**
- **Built-In Support for Fluke and Raytek 8-14 mm Infrared Thermometers**
- **First-of-its-Kind Thermometer Emissivity Matching**
- **Accredited Radiometric (Infrared) Calibration Reports**

These easy-to-use infrared calibrators are the highest-accuracy portable IR calibrators available over a combined temperature range of –15° C to 500°C. Most competitive units are calibrated using a PRT, but there is a big difference between what an IR thermometer measures and what a PRT will measure. That is why the 4180 series are calibrated using precision IR reference standards that account for spectral band and emissivity. IR thermometer manufacturers use large targets when calibrating their products because size-of-source uncertainties are often large, especially for inexpensive thermometers. 4180 series calibrators have six-inch targets and proprietary controllers producing excellent uniformity and stability. In addition, emissivity plays an important role in the accuracy of your infrared thermometer and not every thermometer has the same emissivity setting. Expert calculations are performed automatically by the 4180 series calibrators so that you can get an accurate calibration no matter what the emissivity your thermometer is set to. The end result is precision IR thermometer calibrations accurate to ±0.35°C.

▲ **4180**   ▲ **4181**

Each Unit Includes: Accredited radiometric calibration reports, target cover, user's guide, getting started guide and 9930 Interface-*it* software with user's guide.

Specifications		
	4180	**4181**
Temperature Range	-15°C to 120°C	35°C to 500°C
Display Accuracy (Radiometric Calibration)	± 0.40°C @ -15°C	± 0.35°C @ 35°C
	± 0.40°C @ 0°C	± 0.70°C @ 200°C
	± 0.55°C @ 120°C	± 1.60°C @ 500°C
Target Size	6" (15 cm)	6" (15 cm)
Emissivity (Calibrated)	0.95	0.95
Weight	20 lbs	21 lbs
Calibration	Accredited Radiometric Calibration Included	

Ordering Information	
Description	**Order #**
Precision Infrared Calibrator, -15°C to 120°C	25669CL
Precision Infrared Calibrator, 35°C to 500°C	25670CL
Recommended Accessories	
Carrying Case, 4180 /4181	25671CL

Extech RH390 Precision Humidity Meter

Highest 2% RH accuracy with fast 30 seconds response time.

- **Fast Response Time (<30 Seconds)**
- **Dual Backlit Display**
- **Simultaneous Display of: Humidity/Temperature, Humidity/Dew Point or Humidity/Wet Bulb**
- **Data Hold and Min/Max Functions**

Ordering Information	
Description	**Order#**
Precision Humidity Meter	15484AN

FLIR i-Series Compact Thermal Imaging Cameras

Presenting the best performance and value in compact thermal imaging cameras ever, designed to fit beautifully into your IR inspection program, budget, and the palm of your hand.

Three Best-in-Class Imagers:

- i3 – 3,600 Pixels - Groundbreaking Affordability
- i5 – 6,400 Pixels - Fast and Accurate
- i7 – 14,400 Pixels - Meets the New Resnet Standards

All i-Series Cameras Offer:

- **Excellent Screen Size and Quality** – High-Resolution Color 2.8" LCD Display Helps You Find Problems Fast

- **Accurate Results** – FLIR's Outstanding Thermal Accuracy (+/-2%) and Broad Measurement Range (-20°C to 250°C) Give You Results You Can Count On

- **Rugged, Lightweight Design** – Easy to Carry at Less Than 12 Ounces, One-Handed Operation with a Focus-Free Lens, and Tough Enough to Stow with the Rest of Your Tools

- **Fully Radiometric Images** – Store up to 5,000 JPEG Image Files with All Your Temperature Measurements Right in the Camera for Future Analysis, Downloads, and Custom Reports

- **Plenty of Extras** – Includes PC Reporting Software, Plenty of Memory with a 2 GB microSD Card, and Comes Complete with a Hard Carrying Case

- **Unmatched Warranty** – FLIR's Exclusive Double Diamond Warranty Covers the Whole Camera for 2 Years, the Battery for 5 Years, and the Detector for 10 Full Years. No One but FLIR Can Offer Peace of Mind Like This

Pocket-Sized

SD Card for Image Storage

i3 ▶

Specifications			
Mfg #	i3	i5	i7
Resolution	60 × 60	80 × 80	120 × 120
Total Pixels	3,600	6,400	14,400
Thermal Sensitivity	<0.15°C	<0.1°C	<0.1°C
Accuracy	+/-2% or 2°C		
Temperature Range	-4°F to 482° F (-20°C to 250°C)		
Field of View	12.5° × 12.5°	17° × 17°	25° × 25°
Focus	Focus Free		
Detector	Uncooled Microbolometer		
Screen	2.8" Color LCD		
Frame Rate	9 Hz		
Emissivity	0.1 to 1.0 Adjustable		
Thermal Palettes	Iron, Rainbow, Black/White		
Measurement Modes	Spot (center)	Spot (center)	Spot (center); Area (min. & max.); Isotherm (above/below)
File Type	Radiometric JPG (>5,000)		
Battery Type/Op Time	Li-Ion / >5 hrs		
Charging System	In-Camera, AC Adapter; 3 hrs to 90% capacity		
Dimensions/Weight	8.8" × 3.3" (223 × 79 × 83 mm) / 12 oz (340 g) Including Battery		
Shock/ Vibration	25 G, IEC 68-2-29 / 2 G, IEC 68-2-6		
Warranty	2 Year		

Temp guns don't just give you the temperature of whatever's under the laser dot, they show an average temperature across a much wider area.

The farther you get away from the object you're trying to measure, the less accurate your reading becomes.
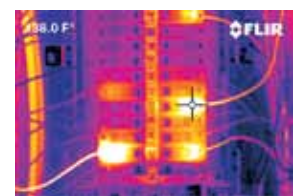
Thermal cameras give you thousands of accurate temperature readings in every image, so you'll get the whole picture — up close or far away.

Ordering Information	
Description	Order #
i3 Thermal Imager 60x60 Resolution and 3,600 total Pixels	FLIRI3
i5 Thermal Imager 80x80 Resolution and 6,400 total Pixels	IRC40
i7 Thermal Imager 120x120 Resolution and 14,400 total Pixels	FLIRI7

Fluke Ti32 Industrial-Commercial Thermal Imagers

Fluke thermal imagers are designed, tested, and manufactured in the USA, and feature a two year warranty.

- **Delivers the Clear, Crisp Images Needed to Find Problems Fast with its 320X240 Sensor**
- **Identify Even the Smallest Temperature Differences that Could Indicate Problems with Industry-Leading Thermal Sensitivity (NETD)**
- **Automatic Alignment (Parallax Correction) of Visual and Infrared Images with Fluke Patented IR-Fusion**·
- **Optional Telephoto and Wide Angle Lenses Available for Added Versatility and Special Applications (Easily Installable in the Field)**
- **Field Replaceable Batteries Give You Maximum Flexibility no Matter Where Your Work Takes You**
- **Intuitive, Three-Button Menu is Easy to Use**
- **Voice Annotations can be Recorded with Every Image You Take and Saved Along With Individual Images for Future Reference**
- **One-Handed Focus Capability, Emissivity Correction, Reflected Background Temperature Compensation, and Transmission Correction Increase the Accuracy of Measurements in Most Situations**
- **Engineered and Tested to Withstand a 2 M (6.5 Ft) Drop**

Each Unit Includes: Standard infrared lens; AC power supply and battery pack charger (including mains adapters); two, rugged lithium ion smart battery packs; SD memory card; multi-format USB memory card reader for downloading images into your computer; SmartView® software with free software upgrades for life; rugged, hard carrying

Ordering Information	
Description	**Order #**
Ti32 Thermal Imager	TI32

Fluke CLKT C-Range Infrared Window

These arc-resistant, outdoor certified, infrared windows allow thermal, ultraviolet, visual and fusion technologies to be used without exposing personnel to live equipment.

- **Engineered and Tested to Withstand Electric-Arcs up to 50 kA for 30 Cycles**
- **Certified by UL & CSA for Type 3/12 (Outdoor) Environments in North America and Canada, the C-Range Windows are Tested to Withstand the Long Term Aging Effects of UV Exposure**
- **The CLIRVU® Coating—Exclusive to Fluke Windows—Seals the Optic Prior to Assembly to Protect Against Moisture Degradation**
- **The Quadraband™ Optic Is IR-Fusion® Compatible, Allowing the Thermographer to See Potential Problems in Visual Light and Thermographic Mode**
- **Each C-Range Window is Delivered with an Identification Plate Attached for Unique, On-Site Numbering for Rapid Location Confirmation and Faster Repairs**
- **Each Infrared Window Comes Complete with a Security Access Key, Installation Instructions and Self-Adhesive Drilling Template**

Ordering Information	
Description	**Order #**
50mm C-Range Infrared Window	FLK-050-CLKT
75mm C-Range IR Window,	FLK-075-CLKT
75mm Indoor Only IR Window	FLK-075-CLKTO
100mm C-Range IR Window, Kwik Twist	FLK-100-CLKT

FLK-075-CLKT

K-Sun BEE3+ Heat-Shrink and Label Printer Kit

The professional's best choice for heat-shrink tube identification and general custom labeling.

- **Eleven Different Heat-Shrink Tube Sizes**

- **Save 50% off the Cost of Heat-Shrink Materials Compared to Leading Competitors**

- **More Heat-Shrink Tube Material in Each Cartridge Offers Better Value and Convenience**

- **Fifty-eight Different Colors and Sizes of Polyester Adhesive Backed Industrial Labeling Tape**

- **Front Loading and Transparent Cartridges**

- **Auto and Manual Tape and Heat-Shrink Tube Cutter**

Each Unit Includes: AC or DC auto adapter, case, one 1/2" black on white heat-shrink tube cartridge, one 1/2" black on white tape cartridge, wrist strap and six AA batteries

▲
BEE3+

Ordering Information	
Description	**Order #**
Heat-shrink and Label Printer Kit	Bee3PLUS
K-Sun LABELShop® Tape Cartridges (length = 26') * **Fits all K-Sun LABELShop® Printers**	
*Other tape colors and sizes available upon special request, BEE3 uses ¾" and smaller sizes only.	
1/6" Black on White	80017TL
1/4" Black on Clear	22364E-6
1/4" Black on White	22364E-1
1/4" Black on Yellow	206BY
1/4" White on Black	22364E-5
1/4" Black on Green	22364E-2
1/4" Black on Blue	22364E-3
1/4" Black on Red	22364E-4
3/8" Black on White	22365E-1
3/8" White on Black	22365E-3
9MM 3/8" Black Ink/Silver Matte Tape/16'4"	209SM
1/2" Black on Clear	22366E-1
1/2" Black on Yellow	22366E-3
1/2" Black on Red	22366E-6
1/2" Black on White	22366E-2
1/2" White on Black	22366E-4
1/2" Black on Blue	22366E-5
1/2" Black on Green	22366E-7
1/2" White on Red	22366E-9
1/2" Black on White Removable Adhesive	212RA
12MM 1/2" Black Ink/Silver Matte Tape/16'4"	212SM
3/4" Black on Clear	22367E-1
3/4" Red on Clear	22367E-2
3/4" Black on Silver Matte 16'	218SM

Ordering Information	
Description	**Order #**
3/4" White on Clear	22367E-3
3/4" Black on White	22367E-4
3/4" Black on Yellow	22367E-5
3/4" Red on White	22367E-6
3/4" Black on Blue	22367E-7
3/4" Black on Red	22367E-8
3/4" Black on Green	22367E-9
3/4" Black on Fluorescent Orange, 16'	22367E-10
3/4" White on Black	22367E-15
*BEE3 & BEE3+ uses 3/4" sizes or smaller tapes only.	
1" Black on Yellow	22368E-3
1" Black on White	22368E-2
1" Black on Clear	22368E-1
24MM 1" Black Ink/Silver Matte Tape/16' 4	224SM
Self–Lamination Overwrap Label Tape	
1/4" Black on White – 3/4" Tail *(26')	80151TL
K-Sun LABELShop® Shrink Tube Cartridges for models 2001XLST, 2010PC,2012XLST, 2012XLST-PC, BEE3, BEE3+, GREEN MACHINE®, GREEN MACHINE®-PC. (BEE3 & BEE3+ use 1/8" and 3/16" size only)	
1/8" Black on White Shrink Tube	203STBW
3/16" Black on Yellow Shrink Tube	205STBY
3/16" Black on White Shrink Tube	205STBW
3/16" Black on Red Shrink Tube	205STBR
3/16" Black on Green Shrink Tube	205STBG
3/16" Black on Blue Shrink Tube	205STBB
1/4" Black on White Shrink Tube	80015TL
1/4" Black on Yellow Shrink Tube	80016TL
3/8" Black on White Shrink Tube	80138TL
1/2" Black on Yellow Shrink Tube	211STBY
1/2" Black on Red Shrink Tube	211STSB
1/2" Black on White Shrink Tube	211STBW

K-Sun LABELShop• BEE3
Portable Label & Heat Shrink Tube Printer

The Most Portable and Affordable Printer On The Market.

- Thirty-Six Month Full Warranty on Printer (with Registration)
- Prints on Five Tape Widths - 1/6", 1/4", 3/8", 1/2" and 3/4"
- Prints on Two Heat Shrink Tube Sizes in Five Color Combinations, 1/8" and 3/16"
- Prints on 64 Different LABELShop® Tapes
- Special Cable Label Functions for Wire and Tube Indentification
- Fourteen Fonts, 1-4 Lines of Text for Maximum Label Design Flexibility
- Six Bar Code Formats - Code 39, Code 128, ITF, UPC-A, UPC-E, CODABAR
- Sixty-Seven Key QWERTY Style Keyboard for Easier Text Input
- Twelve Character, 2-Line LCD Display for Easy Text Entry and Proofing
- Auto Tape Cutter for Fast Label Output
- 1,000 General, Industrial, Plant, Safety and Office Symbols to Improve Label Designs
- English and Spanish Language Prompts
- Built-in Handle for Convenient Hand-Held Use
- Tape Management Design Saves Supplies
- Power Options: Six AA Batteries (Included)
  AC Adapter (Meets New California Energy Reduction Requirements)
  12V DC Truck & Auto Adapter for In-Field Operation
- Other Options: Rubber Bumper Guard for Gripping Power and Damage Control
  Nylon Adjustable Wrist Strap Protects Printer from Dropping
  High Impact Carrying Case Holds Printer, Adapter, Three Tapes, Manuals
- Dimensions: 2.3"H X 7.42"W X 8.8" D, 1.23 Lbs.

K-Sun LABELShop• Bee3b
Comes In Many Kit Combinations Providing Even More Value

K-Sun LABELShop• Bee3• Accessories

12V-DC Auto & Truck Adapter

115/240V-AC Adapter

Rubber Base Guard

Deluxe Plastic Case

Ordering Information	
Description	**Order #**
Includes: Bee3 Label & Heat Shrink Tube Printer, Tape Cartridge, Six AA Batteries, Tape Liner Cutter Tool, Manual	80278TL
Includes: Bee3 Label & Heat Shrink Tube Printer, Tape Cartridge, AC Adapter, Six AA Batteries, Tape Liner Cutter Tool, Manual	80279TL
Includes: Bee3 Label & Heat Shrink Tube Printer, Rubber Bumper Guard, AC Adapter, Tape Cartridge, Six AA Batteries, Adjustable Wrist Strap, Case, Tape Liner Cutter Tool, Manual	80280TL
Includes: Bee3 Label & Heat Shrink Tube Printer, Rubber Bumper Guard, AC Adapter, Three Supply Cartridges, Six AA Batteries, Adjustable Wrist Strap, Case, Tape Liner Cutter Tool, Manual	80281TL
Recommended Accessories	
AC Adapter for Bee3 Printer	80282TL
12V DC Truck & Auto Adapter for Bee2 Printer	80283TL
Black High Impact Plastic Case for Bee2 Printer	80284TL
Adjustable Nylon Wrist Strap	80285TL

K-Sun Green Machine● 2020LSTB Professional Label, Heat-Shrink Tube and Bar Code Printer

The most advanced and eco-friendly electronic label heat-shrink tube, and bar code printer on the market today.

- **Backlighted Display for Easy Identification in All Lighting Conditions**
- **Peelguard® Tape Trimmer Rounds Corners for Ultimate Durability and Professional Appearance**
- **Easy-Font Size and Style Direct Selection Keys**
- **Direct Access Keys for Wire Wrap, Patch Panels, and Flagging**

The K-Sun Green Machine® 2020LSTB is the most advanced and eco-friendly electronic label, heat-shrink tube, and bar code printer on the market today. It features a new high-intensity 16 character, 4-line backlighted display for easy identification in all lighting conditions. Unique Easy-Font size and style direct selection keys eliminate all the hassle of finding and selecting type sizes and styles. Direct access keys for wire wrap, patch panels, and flagging simplify electrical, cable and wire identification. Also included is the exclusive PeelGuard® electric tape trimmer that rounds corners for ultimate durability and professional appearance of any label if desired. Has Flash-Rom memory so no hazardous internal battery, 99-file memory, and prints up to 8-lines of text. Auto or manual tape cutting feature. Add barcodes (six formats), 1,000 symbols, and multiple type effects to increase label readability and impact. Includes 14-font styles and 7-sizes. Auto alphanumeric sequencing, repeat, and mirror printing add to the flexibility of label and heat shrink tube creation. The Green Machine® offers 12-languages and runs on batteries or a universal worldwide 120 V, AC power adapter that meets all the USA, CSA, EU, UK, CE, UL electrical standards and requirements for safety and energy reduction. The printer contains no-lead parts and is halogen free. It contains many other energy and ecology friendly aspects and components. Made of industrial grade high-impact plastic, the Green Machine® is designed for field or desktop use. A standard QWERTY style keyboard makes text entry fast and easy. It prints on over 60 different tape sizes and colors (1/6", 1/4", 3/8", 1/2", and 1") 11 heat shrink tube sizes and colors (1/8", 3/16", 1/4", 3/8", and 1/2") and 1-wire wrap tape size. The Green Machine® makes more durable and better-looking labels, saves money and energy, and helps the environment too!

Green Machine●

Each Unit Includes: Green Machine® 2020LSTB Printer, six AA Batteries, AC Adapter, one tape cartridge, manual and tape liner cutter tool.

Ordering Information	
Description	**Order #**
K-Sun Green Machine® 2020LSTB	2020LSTB
K-Sun GREEN MACHINE®-PC Includes Printer, AC Adapter, 224BW, Manual, Quick Start Guide, Tape Cutter Tool, (6) AA Batteries, MaxiLabel® Pro Ver. 3.0 Software with Quick Start Guide, Software Manual on CD, USB Cable	2020LSTB-PC
K-Sun GREEN MACHINE®-PC-Deluxe Includes Printer, AC Adapter, 224BW,224SL, 205STBW, Manual, Quick Start Guide, Tape Cutter Tool, (6) AA Batteries, MaxiLabel® Pro Ver. 3.0 Software with Quick Start Guide, Software Manual on Cd, USB Cable. Green Industrial Hard Plastic Case	2020LSTB-PCD
Recommended Accessories	
Carrying Case-Heavy Duty	GMCSS-2020

2020LSTB-PC

2020LSTB-PCD

K-Sun LABELShop® Professional Thermal Labeling Printers

Portable, Professional, Easy to Use.

- Label Wire, Cable, Electrical Panels, and More
- Hundreds of International Characters, Punctuation and Symbols
- Ideal for Industrial, Electrical, Utility, Warehouse and Office
- New PeelGuard® Tape Trimmer (Rounds Label Corners for Ultimate Durability & Visual Appeal)
- Shrink Tube Printer (Five Shrink Tube Sizes)
- Bar Coding Capability in Six formats (Code 39, ITF, Code 128, CODABAR, UPC-A, UPC-E)
- Display and Preview Labels Before You Print
- Vertical and Horizontal Printing
- Produces Polyester Adhesive–Backed Labels
- Auto or Manual Tape Cutter
- Labels in 60 Size and Color Combinations
- 5,000 Character and 99 File Memory
- Repeat Printing for the Same Markers or Labels
- Up to Eight Text Lines with Label Length Preview
- Standard QWERTY Style Keyboard
- Operates on Six AA Batteries or AC Power
- Prints on New Wire Wrap Tape
- Auto Adapter Option for Mobile Operation to Save Batteries

Featuring

PeelGuard®

Tape Trimmer

Rounds label corners for ultimate durability & visual appeal.

2011XLB
Industrial Labeling & Bar Code Printer

Each Unit Includes: Printer, Tape Cartridge, Six AA Batteries, Tape Cutter Tool, Manual

Featuring

PeelGuard®

Tape Trimmer

2012XLST
Portable Heat Shrink Tube & Industrial Label Printer

Each Kit Includes: Printer, One Shrink Tube and One General Labeling Cartridge, Six AA Batteries, AC Adapter, Manual and Yellow Heavy Duty Case.

K-Sun LSCSS-11

Heavy Duty Black Plastic Case for 2011XLB

Protects Machine, Easy to Store and Carry Printer

- Black Heavy Duty Plastic
- Holds Printer, Adapter, Tapes, and Owner's Manual

Ordering Information

Description	Order #
K-Sun LABELShop® 2011XLB Machine	2011XLB
K-Sun LABELShop® 2012XLST-PC with MaxiLabel® Pro 3.0 Software	80262TL
K-Sun LABELShop® 2012XLST Printer Kit	80156TL
Recommended Accessories	
Heavy Duty Plastic Case to Hold Printer, Adapter, Tapes, & Owner's Manual for 2011XLB	80158TL
LABELShop® Truck & Auto DC Adapter for 2011XLB and 2012XLST	80263TL

Starrett 668 Shaft Alignment Clamp Sets

Designed for fast, precise alignment of motors, pumps, compressors, etc. This system is capable of addressing radial and angular misalignment problems and can be set up within minutes.

- **Lightweight Clamp Design Made of Black Anodized Aluminum**
- **Rigid 3/8" Diameter Stainless Steel Indicator Posts Provided in Three Lengths (5', 7-7/16', and 9')**
- **Extension Plate Allows For Added Radial Clearance**
- **Heavy-Duty Roller Chain can Accommodate up to a 7-1/2' Diameter Shaft**
- **Sets Are Available With Either Two Starrett 196B5 or 81-141J Indicators**
- **Excess Roller Chain can be Secured to the Side of the Chain Clamp**
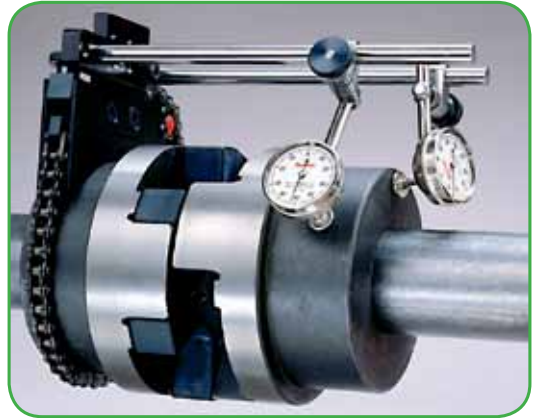
Ordering Information

Description	Order #
Two each: Chain Clamp, 196B5 Indicator, PT18724 Snug, Ext. Plate, Posts (5, 7-7/16, 9), Case	S668CZ
Two each: Chain Clamp, 81-141J Indicator, 657Y, PT18724 Snug, Ext. Plate, Posts (5, 7-7/16, 9), Case	S668DZ
Two each: Chain Clamp, Extension Plate, Posts (5, 7-7/16, 9), Case	S668BZ
One each: Chain Clamp, Ext. Plate, Posts (5, 7-7/16, 9)	S668A
Chain Clamp Only	668

Easy-Laser° D485Wind Laser Shaft Alignment

The Easy-Laser° is designed to provide a fast and easy method for aligning the high speed shaft between the gearbox and generator in a Wind Turbine Generator. Solutions are available for all major brands of wind turbines.

- **On-Screen Live Moves**
- **Built-in Tolerance Program**
- **400 Minimum Turn Required**
- **2-Year Warranty**

Each Unit Includes: (2) 10mm PSD Detectors that span 33 feet, (1) Display Unit w/ firmware for: Horizontal Machines, Vertical Machines, Softfoot, EasyTurn, Cardan, Thermal Growth, Values, Offset & Angle, and Machine Train (9 Couplings). (2) Fixture bases with chain fasteners, (1) Set of 4 each of the 2 1/2" and 9 1/2" rods, (2) 36" chain extensions, (1) protective display case, (1) manual, and (1) carrying case, (1) Magnet base, (1) Offset bracket, (1) 5m extension cable.

Ordering Information

Description	Order #
Easy-Laser D485Wind Laser Shaft Alignment	12-0463

Leica DISTO Handheld Laser Measuring Tools

The Leica DISTO family of laser distance meters is the most complete and versatile line in the industry.

With the most accurate instruments in the industry and the most functionality the Leica DISTO offers you the easiest, safest, and fastest way to get your measurements, even in tough to reach applications. Leica DISTO THE ORIGINAL LASER DISTANCE METER.

Specifications

Mfg #	D210XT	D2	D330	D330i	D5	D8
Range	1.6in to 210ft	1.6in to 197ft	1.6in to 325ft	1.6in to 325ft	1.6in to 650ft	1.6in to 650ft
Accuracy	± 1.5 mm(±1/16″)	± 1.5 m(±1/16″)	± 1 mm	± 1 mm	± 1 mm	± 1 mm
Tilt sensor	NA	NA	± 45°	± 45°	± 45°	± 360°
Digital Point Finder (4X Zoom)	NA	NA	NA	NA	•	•
Full Color Screen					•	•
Bluetooth interface	NA	NA	NA	•	NA	•
Tripod thread	NA	NA	Brass ¼-20	Brass ¼-20	Brass ¼-20	Brass ¼-20
Recall last values	10	10	20	20	20	30
Maxi / Min. measurement	•	•	•	•	•	•
Continuous measurement	•	•	•	•	•	•
Addition / Subtraction	•	•	•	•	•	•
Perimeter / Surfaces	•	NA	•	•	•	•
Pythagoras functions	•	•	•	•	•	•
Measure horizontal distances	NA	NA	•	•	•	•
Stake out function	NA	•	•	•	•	•
Measure corner angles	NA	NA	•	•	•	•
Measure triangular areas	NA	NA	•	•	•	•
Trapezoid measurement	NA	NA	NA	NA	•	•
Meas. heights with tilt sensor	NA	NA	•	•	•	•
Profile measurement	NA	NA	NA	NA	NA	•
Protection Class	IP65	IP54	IP54	IP54	IP54	IP54
Warranty 2+1*	2+1	2+1	2+1	2+1	2+1	2+1
Laser type	2 / 635nm	2 / 635nm	2 / 635nm	2 / 635nm	2 / 635nm	2 / 635nm

▲ **DISTO D330**

Ordering Information

Description	Order #
DISTO D2	DISTO D2
DISTO D210XT	DISTO D210XT
DISTO D330	DISTO D330

Ordering Information

Description	Order #
DISTO D330i	DISTO D330i
DISTO D5	764553
DISTO D8	764558

Fluke 421D, 416D & 411D Laser Distance Meters

Professional-grade distance measuring tools that are fast, easy to use, and fit in your pocket.

- **Elimination of Estimation Errors**
- **One-Button Operation**
- **Quick Calculation of Area (Square Footage) and Volume**
- **Easy Addition and Subtraction of Measurements**
- **Pythagoras Calculation for Determining Distance Indirectly from Two Other Measurements**
- **Two-Year Warranty**

The 421D and 416D Also Offers:
- **Ability to Measure up to 60 M (200 Feet)**
- **Storage of the Last 10 Measurements**
- **Minimum and Maximum Function**
- **Enhanced Pythagoras Calculation for Determining Distance Indirectly from Three Other Measurements**
- **IP54 Environment Protection**

The 421D Also Offers:
- **Ability to Measure up to 100M (330 ft)**
- **Audible Feedback for Taking Room Angle and Incremental Measurements**
- **±45° Tilt Sensor for Taking Indirect Measurements**
- **Tripod Mode**
- **Corner Angle Feature**

▲ **421D**

▲ **411D**

▲ **416D**

Ordering Information

Description	Order #
Fluke 411D Laser Distance Meter	411D
Fluke 416D Laser Distance Meter	416D
Fluke 421D Laser Distance Meter	421D
Fluke 411D & Fluke 62 Kit	411D/62

AEMC• 6608 Phase Rotation Tester

Quickly identify phase sequence, avoid costly problems due to miswiring.

- **Indication of Live Phase Presence or Phase Absence**
- **Automatic Testing as Soon as the Instrument is Connected**
- **Terminals and Cables Identified by Color-Coding to Simplify Connection**
- **Phase Rotation Indicators**
- **Color-Coded 5' Leads and Alligator Clips**
- **Color-Coded Leads (Red, Black, Blue) and Alligator Clips (Black)**
- **Simple Operation**
- **Line Supplied — No Battery Needed**
- **600V CAT III Rated and CE Mark**

Specifications

Operating Voltage	40 to 850V AC between phases
Frequency Range	15 to 400Hz
Power Supply	Self-powered via the measurement inputs (line powered)
Electrical Safety	600V CAT III
Dimensions	5.1 x 2.7 x 1.3" (130 x 69 x 32mm)
Weight	4.5 oz (130g)
Operating Temperature	32° to 104° F (0° to 40° C)
Storage Temperature	-4° to 122° F (-20° to 50° C); RH < 80%
Safety Ratings	IEC 61010-1, DIN VDE 0411; IEC 61557-7, DIN VDE 0413-7; Tightness: IP 40 (as per IEC 60529 Ed.92)

Each unit includes: Carrying case, three test leads, three alligator clips and a user manual.

Ordering Information

Description	Order #
Phase Rotation Meter Model 6608	2121.10

Megger• TTR20• Handheld TTR

Used to measure the turns ratio, excitation current and polarity of windings in single- and three-phase distribution and power transformers (tested phase by phase), potential & current transformers, and tapped transformers.

- **Single- and Three-Phase Transformer Testing**
- **Measures Turns Ratio Range of 10,000:1 with a High Accuracy (±0.1%, 0.8 to 2000) at a Low Excitation Voltage**
- **Fully Automatic, Fast, Easy, Hand-Held Operation; Robust; Lightweight**
- **Battery Powered**
- **Tests Turns Ratio, Excitation Current, and Polarity**
- **Quick-Start Guide on Front Panel**
- **Records Ratio Errors for Bushing CTs to an Accuracy of ±0.1% Nameplate**
- **Perfect for Meter Shops, the TTR20 can be Used for Inspection Purposes to Determine the No-load Accuracy of Most CTs and PTs. It also can be Used to Determine the Need to Test Potentially Faulty CTs and PTs**

Each Unit Includes: Combined test leads, "X/H" winding, 1.8 m (6') , Instruction manual and carrying case.

Ordering Information

Description	Order #
Hand-held TTR20	45530EL
Recommended Accessories	
Combined test leads, "X/H" winding, 3.6 m (12')	45788EL
Combined test leads, "X/H" winding, 6 m (20')	45789EL
Combined test leads, "X/H" winding, 10 m (33')	45790EL
Printer package including battery/line power serial thermal printer with paper, battery pack and charger, printer interface cable, 120V, 60Hz	45791EL

Shimpo Laser Tachometers

Laser beam allows safe, accurate measurements from up to 20 feet.

- **Extended Range to 99,999 RPM Covers Wider Range of Applications**

- **Expanded Memory Stores up to 10 Readings plus Last, MAX, MIN; Retains Readings for Five Minutes**

- **Included Adapters Allow RPM, YPM, mPM, FPM, IPM Speed Measurements Plus YRD, m, FT, IN Length Measurements**

- **Rugged Aluminum Housing Provides Exceptional Durability**

- **1/4 x 20 Tripod Mounting Hole**

These contact/non-contact tachometers employ sophisticated technology for greater measuring-distance capability, increased measuring range, expanded memory, and battery life seven times longer than that of previous models.

Each Unit Includes: Reflective tape, two cone adapters, funnel adapter, contact adapter, 6"-circumference master wheel, NIST certificate, carrying case, and instruction manual.

DT-209X ▶

Specifications

Mfg #	DT-205LR	DT-207LR	DT-209X
Display Range	6 to 99,999 RPM		
Measuring Distance	20'		14'
Accuracy	±1 RPM at 6 to 8,300 RPM; ±2 RPM to 25,000 RPM; ±0.006% of rdg. ± 1 digit or (±7 RPM max) to 99,999 RPM		
Display	5-digit 0.47" (12 mm) LCD	5-digit 0.4" (10 mm) LED	5-digit 0.47" (12 mm) LCD
Power	Two 1.5V AA batteries	Two 1.5V AA batteries	Two 1.5V AA batteries
Approx. Life	40 hrs	25 hrs	15 hrs
Size/Weight	6.6 x 2.4 x 1.8" HWD (167 x 61 x 45.7 mm)/0.8 lb. (365g)		

Ordering Information

Description	Order #
Laser Tachometer with LCD Display	24519FST
Laser Tachometer with LED Display	24521FST
Laser Tachometer with LCD Display	99133TS
LCD Model w/ 12" Linear Wheel	24519FST-12
LED Model w/ 12" Linear Wheel	24521FST-12
LCD Model w/ 12" Linear Wheel	99134TS
Transcat Accredited Calibration	Call
Transcat Accredited Calibration for DT-205L-S12	Call

Recommended Accessories

Description	Order #
Roll of Reflective Tape	Reflective Tape
Replacement Conical Adapter	4814FST
Replacement Funnel Adapter (Concave Tip)	4815FST
Replacement 3" Extension Shaft	4817FST
Linear Speed Wheel (6" Circumference)	FPM-6

Shimpo Tachometer, Contact

Measurements per minute and hour.

- **Linear and Rotational Measurements**
- **Length and Total Revolutions**
- **1/4 x 20 Tripod Mounting Hole**

Speed is displayed on the 5-digit LCD display. Revolutions, yards, meters, feet, and inches. 7236FST-1 shares the same basic features while offering an LED display.

Each Unit Includes: Two conical adapters (4814FST), funnel adapter (concave tip) (4815FST), 3 1/2" extension shaft (4817FST), reflective tape, wheel (6" FPM) (4816FST), two 1.5V alkaline AA batteries, padded carrying case, instruction manual, and manufacturer's NIST certificate.

DT-105A ▶

Specifications

Mfg #	7236FST	7236FST-1
Display	5-digit, 0.47" (12 mm) high LCD	5-digit, 0.4" (10 mm) high LED
Display Range	0.1 to 25,000 RPM with floating decimal	
Accuracy	±0.06 RPM: 0.1 to 999.99; ±0.6 RPM: 1000 to 9999.9; ±0.006% rdg ±1 digit: 10,000 to 25,000 RPM	
Measuring Units	Revolutions: RPH, RPM; Feet: FPH, FPM;	
	Miles: MPH; Yards: YPH, YPM; Inches: IPM; Meters: mPH, mPM	
Length	m, cm in, ft, yds; Total revolutions: REV	
Memory System	Thirteen readings are stored in memory and retained for five minutes (min) (last, max, min, and 10 extra measurements)	
Detection	Optical coupler, 60 pulses/rev.	
Operating Temp	32° to 113° F (0° to 45° C)	
Power Supply	Two 1.5V AA alkaline batteries	
Size/Weight	8.3 x 2.4 x 2" LWH/1 lb	

Ordering Information

Description	Order #
Contact Tachometer, LCD	7236FST
Contact Tachometer, LED	7236FST-1
LCD Model Kit with 12" Linear Wheel	7236FST-12
LED Model Kit with 12" Linear Wheel	7236FST-1-12
Transcat Accredited Calibration	Call
Transcat Accredited Calibration for DT-107A & DT-107A-S12	Call

Recommended Accessories

Description	Order #
Replacement Conical Adapter	4814FST
Replacement Funnel Adapter (Concave Tip)	4815FST
Replacement 3" Extension Shaft	4817FST
Linear Speed Wheel (12" Circumference)	4818FST
Linear Speed Wheel (6" Circumference)	FPM-6

Monarch Pocket Tachometer 99

Non-contact economical precision optical tachometer.

- **Operating Range up to 36 Inches (Red LED)**
- **Rugged Ergonomic Rubberized Housing**
- **Lock "ON"**
- **Tripod Mounting Bushing for Hands-Free Operation**
- **Autoranging or Fixed Decimal-User Selectable**

Pocket Tach 99 is a digital, battery-powered portable optical tachometer. The unique design allows you to safely view both the target and the display at the same time, while providing a no-slip rubber housing. Pocket Tach 99 is the value-leader of the world-class Pocket Tach Series from Monarch Instrument.

PT99 ▶

Specifications	
Display	5 Digits, 5 Alpha-numeric LCD
Range	5 to 99,999 RPM
Accuracy	±0.01% of reading or ±1 Digit
Autoranging Resolution	0.001 to 1.0 RPM
Fixed Resolution	1 Digit RPM
Operating Range	2 to 36", ± 30°
Memory	Maximum, Minimum and Last
Power	Two AA 1.5V DC batteries
Dimensions	6.92 "H x 2.4"W x 1.6"D
Weight	7 oz. (210 g)

Ordering Information	
Description	**Order #**
Pocket Tach 99 Basic Tachometer with 12" Reflective Tape	99047TS
Transcat Accredited Calibration	Call
Recommended Accessories	
Padded Pouch Fits Tachometers	99042TS
Latching Plastic Carrying Case. Fits all Models	99043TS
Reflective Tape 5' roll, 0.5" wide	7246FST

Amprobe ULD-300 Ultrasonic Leak Detector

When leaks occur, they often generate an ultrasonic frequency that is beyond human hearing. Amprobe's ULD-300 converts these sounds into an audible range for easy detection.

- **ULD-300 Ultrasonic Leak Detector**
- **Locates Arcing in an Electrical System**
- **Useful in Finding the Ends of Buried PVC Pipes**
- **Includes Parabola to Reduce Background Noise, Extension Tube to Access Difficult or Dangerous Areas**
- **Detects any Pressurized Gas Leak Regardless of Type CFC; S, HFC's, Nitrogen, Etc. (Non-Combustible Gases)**
- **TMULD-300 Ultrasonic Leak Detector with Ultrasonic Transmitter**
- **Same Features as ULD-300**
- **Includes Transmitter**
- **Transmitter Pressurizes Area with Ultrasonic Sound**
- **Applications Include Air/Water Tightness of Cars or Houses**

The ULD-300 tests pressurized air lines, refrigeration systems, steam lines for leaks. Check for door or trunk seals, windshield leaks. Quickly and easily locate a leak location with this unique device. In areas where leaking gases are not sufficiently pressurized, use the TMULD-300 which includes an ultrasonic transmitter. The transmitter creates ultrasonic sound waves for detecting cracks and leaks.

Ordering Information	
Description	**Order #**
ULD-300 Ultrasonic Leak Detector	ULD-300
TMULD-300 Ultrasonic Leak Detector w/Ultrasonic Transmitter	TMULD-300

Bacharach Leakator® 10 and Jr Gas Detectors

Designed to pinpoint even the smallest gas leak source quickly and easily.

- **Senses Combustible Gases**
- **Audible and Visual Alarms**
- **Long Probe for Easy Reach**
- **Intrinsically Safe**
- **Adjustable Sensitivity (Leakator® 10)**

The instruments use a long-life (five year typical) solid state sensor that can detect combustible gas leaks as small as 50 ppm. These are UL approved as intrinsically safe in hazardous locations (Class 1; Division 1; A, B, C & D).

Each Leakator 10 Includes: Plastic case, probe (19-0403), and instruction manual
NOTE: Unit requires five C alkaline batteries for use. Batteries are NOT included.
Each Leakator Jr Includes: Soft case, probe, four AA Batteries and instruction manual

0019-7051 ▶

0019-7075 ◀

Specifications	
Sensitivity	50 PPM (parts per million)
Response Time	Instantaneous
Size/Weight	8.5 x 2.25 x 1.75" HWD (21.6 x 5.7 x 4.4cm)/18oz (510g) Leakator® 10 6 x 2 x 1.5" HWD (15.4 x 5 x 3.8cm) 6 oz (170g) Leakator® Jr

Ordering Information	
Description	**Order #**
Leakator® 10 Combustible Gas Leak Detector	21014G
Leakator® Jr. Combustible Gas Leak Detector	15034AN
Recommended Accessories	
Replacement Sensor and Match Resistor for Leakator® 10	21014G-1
Replacement Combustible Gas Sensor for Leakator® Jr	15138AN

Bacharach Informant® 2 Refrigerant & Combustible Leak Detectors

Detects All halogens and combustible hydrocarbons.

- **Dual Unit Model-Two Functions**
- **Sequential Flashing Probe Tip, Dual LED Displays and Loud Tick Rate Indicate Relative Concentration Level**
- **Swappable Sensor Tips**
- **Hydrophobic Filter Prevents Moisture Contamination**
- **Automatic Sensitivity Adjustment**
- **Sensors are Industry's Most Responsive 0.2 Seconds**
- **Adjustable Probe Length 3 to 20"**
- **One Year Warranty Including Sensors**

Each Basic Kit Includes: Detector unit and sensor(s), color coded tip(s), four AA batteries, five filters, soft carrying case, and instruction manual.

Each Deluxe Kit Also Includes: two additional AA batteries, protective rubber boot, MagLite*, a hard carrying case and instruction manual.

0019-8042
&0019-8038 ▶

Specifications	
Refrigerants Detected	All CFC, HCFC, and HFC Including R-12, R-22, R-123, R-134a and Blends R-404A, R-408A, R-409A and R-410A (Any refrigerant containing Chlorine, Fluorine or Bromine)
Combustible Gases Detected	All Combustible Gases and Vapors
Alarm Sensitivity	Refrigerant: 0.25 oz/yr of R-134A (hardest to detect refrigerant) Combustibles: Minimum 50 ppm (methane)
Power	Four (4) AA Alkaline Batteries (4-5 Hours Typical Operation)
Size (HWD)/Weight	1.75x9.62x2.25" (4.45x 24.43 x 5.72 cm)/0.86 Lbs. (0.39 kg)
Agency Approvals	Refrigerant: SAE J1627; CE Mark Combustibles: MET Lab Certified to UL 913 Intrinsically Safe for Use in Class I, Div I, Group D Hazardous Areas; CE Mark

Ordering Information	
Description	**Order #**
Dual Refrigerant/Combustable Informant® 2 Detector Kit	19-8042
Deluxe Dual Refrigerant/Combustable Informant® 2 Contractor's Kit	19-8038
Refrigerant ONLY Informant® 2 Detector Kit	19-8040
Deluxe Refrigerant ONLY Informant® 2 Detector Kit	19-8043
Combustible Gas ONLY Informant® 2 Detector Kit	19-8041
Deluxe Combustible Gas ONLY Informant ®2 Detector Kit	19-8044
Recommended Accessories	
Replacement Combustible Sensor	19-0499
Replacement Refrigerant Sensor	19-0510
Replacement Filters (Pk/5)	19-0509

RIDGID• micro CA-100 Inspection Camera

The new RIDGID• micro CA-100 Inspection Camera, the next evolution of the SeeSnake• microTM Inspection Camera, allows you to perform more detailed visual inspections in even harder-to-reach areas.

- (320x240 Resolution) 3.5˝ Color LCD
- 17mm Aluminum Camera Head
- 4 Adjustable LED Lighting
- Cable Reach: 3´ (Expandable to 30´w/ Optional Extensions)
- Video Output:.3´ RCA Cable (Included)
- Waterproof Camera Head and Cable to 10´ (When Properly Assembled)
- Mirror, Hook & Magnet Attachments

Its comfortable pistol-grip design, one-hand controls, and large screen make it easy to detect and diagnose the unreachable. The micro CA-100 comes standard with a rugged 3/4 inch, 17mm anodized aluminum camera head with 4 super bright LEDs. Easily rotate the active image counter-clockwise to see in any situation. The RIDGID micro CA-100 Inspection Camera provides solutions whenever and wherever you need them.

Ordering Information

Description	Order #
micro CA-100 Inspection Camera	36738
Recommended Accessories	
17mm Replacement Imager	37103
Universal 3' Cable Extension	37108
Universal 6' Cable Extension	31133

Transcat Complete Tool Kits. . .
Save Time, Money & Hassle

Technicians Tool Kit

Other Kits Available

Service and Maintenance Kit | Blade Repair Kit | Site Kit | Commissioning Kit

Torque Wrenches
Multimeters
Hand Tools
Process Tools
DLROs®
TTRs™
Chisels / Prybars
Electric Power Tools
Extension Cords

Insulation Testers
Files & File Sets
PPE
Gloves
Measuring Tools
Eye Protection
Fall Protection
See page 51 for more details.

WRIGHT TOOL   STAHLWILLE   Megger.   FLUKE.

For more information: *Call 800.779.5289 or visit Transcat.com/windenergy*

RIDGID● SeekTech● Transmitters

Locating with RIDGID transmitters gives you the power and versatility to quickly and accurately trace underground lines, cables, and pipes!

- Five Default Frequencies: 128Hz, 1kHz, 8kHz, 33kHz, 262kHz
- Ten Watt, Variable Power (ST-510)
- Twenty-Five Foot Lead Wires for Extending Leads when Needed for Better Grounding
- Weight: 7.5lbs (3.4 Kg), 9lb (4.1kg) (without batteries)
- Maximum Open Circuit Voltage: 240VAC 50/60Hz

ST-510 10 Watt Transmitter

ST-305 5 Watt Transmitter

ST-33Q

Specifications			
	ST-33Q	ST-510	ST-305
Output Frequencies			
Direct Connect	(Factory Set) 128 Hz, 1kHz, 8kHz, 33kHz, 93kHz, 262kHz, (User Defined) Any Frequency 10 Hz – 490kHz	128 Hz, 1kHz, 8kHz, 33kHz, 262kHz	1kHz, 8kHz, 33kHz, 262kHz
Induction	8kHz, 33kHz	1kHz, 8kHz, 33kKz, 262kHz	1kHz, 8kHz, 33kKz, 262kHz
General			
Weight (without batteries)	9 lb (4.1kg)	7.5 lb. (3.4 Kg)	2.4 lb. (1.1 Kg)
Power Source	Six Alkaline or rechargeable batteries. (D-Cells) or 12V external power supply	Eight Alkaline or rechargeable batteries. (D-Cells) or 12V external power supply	Six Alkaline or rechargeable batteries. (C-Cells)
Power Settings	5 mA to 400 mA on internal batteries; High Power option to 1000 mA	5 mA to 400 mA on internal batteries; High Power option to 1000 mA	5 mA to 400 mA on internal batteries; High Power option to 1000 mA
Output Power	+5 Watts*	10 Watts Maximum	5 Watts Maximum

* When external power source is connected to the ST-33Q, or rechargeable batteries are used up to 10 Watts nominal output power can be generated in direct connect mode.

Ordering Information	
Description	**Order #**
SeekTech ST-305 Transmitter (5 watts)	21898
SeekTech ST-510 Transmitter (10 watts)	21903
SeekTech ST-33Q Line Transmitter (5 watts)	26168
Recommended Accessories	
SeekTech 4" Inductive Signal Clamp	20973

RIDGID● SeekTech● Receivers

The large displays on the SeekTech Receivers give you the information you need when you need it to locate more with greater certainty.

- Tracing Line – Guides the Operator Down the Line and Shows Changes in Direction
- Left-Right Guidance Arrows – Points the Operator to the Target Utility
- Proximity Signal and Signal Strength – Helps the Operator Center the Locator Closer to the Target for More Confident Locates

Other Features Include:

- Continual Depth – Shows Depth Changes in Real Time
- Omni-Seek® – Continuously Searches Passive Power and Radio Bands to Locate and Avoid Unknown Metallic Lines
- User-Defined Frequencies – Ridgid Seektech Receivers can be Configured with up to 30 User Defined Frequencies. The Seektech SR-60 can be Set to any Frequency Between 10Hz and 490,000Hz Making it a Universal Receiver

SR-60 Line Locator

SR-20 Line Locator

Specifications		
	SR-20	SR-60
Simultrace™ (Simultaneous Sonde & Line Trace)	No	Yes
User Defined Frequencies (Competitor Frequencies)	Yes up to 35K	Yes – All Available
Omni-Seek® (Simultaneous Multiple Line Trace)	Yes – All Passive Bands at Once	
Depth	Continual	
Current Measurement	Continual	
Distortion Indication On One Screen	Yes	
Stereo Guidance (Using Headphones)	No	Yes

Ordering Information	
Description	**Order #**
SeekTech SR-20 Line Locator (Includes Case)	21893
SeekTech SR-60 Line Locator (Includes Case)	22163

AEMC• 8335 PowerPad• Three-Phase Power Quality Analyzer

Intended for Technicians and Engineers to measure and carry out diagnostic work and power quality work on one, two or three phase low voltage networks.

- **Measurement of TRMS Voltages up to 1000Vrms AC/DC For Two, Three, Four or Five-Wire Systems**
- **Measurement of TRMS Currents up to 6500Arms (Sensor Dependent)**
- **Color Coded Input ID Markers Included**
- **Direct Measurement of Neutral Current & Voltage**
- **Frequency Measurement (40 to 69Hz Systems)**
- **Record and Display Trend Data as Fast as Once Per Second for One Month for up to 25 Variables**
- **Calculation of: Crest Factors for V And A, K-Factor for Transformers, Short-Term Flicker, Three-Phase Voltage Unbalance, Power Factor, Displacement Power Factor and Tangent**

- **Harmonic Measurements (Referenced to the Fundamental or RMS Value) for Voltage, Current or Power, up to 50Th Harmonic**
- **Displays of Harmonic Sequencing and Direction and Calculation of Overall Harmonics**
- **Real Time Display of Phasor Diagrams Including Values and Phase Angles**
- **Monitors the Average Value of any Parameter, Calculated for a Period from 1 Sec To 2 Hrs**
- **Measurement of Active, Reactive and Apparent Power Per Phase and Their Respective Sum Total**
- **Selectable PT and CT Ratios**
- **Inrush Current Measurement**
- **Transient Detection On All V and I Inputs (up to 210)**

Each Unit includes: Five 10 ft black voltage leads, five black alligator clips, twelve color-coded rings, USB cable, NiMH battery, 110/240V power adapter with US power cord, DataView® software, large classic tool bag, soft carrying pouch and user manual.

Ordering Information

Description	Order #
PowerPad® Model 8335 (no probes)	2136.20
PowerPad® Model 8335 w/4 MN93 (200A)	2136.21
PowerPad® Model 8335 w/4 SR193 (1,200A)	2136.22
PowerPad® Model 8335 w/4 24" AmpFlex® 193-24 (6,500A)	2136.23
PowerPad® Model 8335 w/4 36" AmpFlex® 193-36 (6,500A)	2136.24
PowerPad® Model 8335 w/4 MR193 (1,000AAC/1,400ADC)	2136.25
PowerPad® Model 8335 w/4 MN193 (6A/120A)	2136.26
PowerPad® Model 8335 w/4 MA193-10-BK (1000A)	2136.27
Transcat Accredited Calibration	Call

Recommended Accessories

Description	Order #
AmpFlex® Sensor 24" Model 193-24-BK (6500A)	45626EL
AmpFlex® Sensor 36" Model 193-36-BK (6500A)	45627EL
AC Current Probe Model MN193-BK(6A/120A)	45628EL
Lead, 1 10ft (3m) black lead w/black alligator clip	2140.44
MiniFlex® Sensor 10" Model MA193-10-BK (1,000A)	2140.48

Recommended Accessories

Description	Order #
Set of Three MN93 Probes (240A) with 10' Leads	2140.09
Set of Three SR193 Probes (1200A) with 10' Leads	2140.10
Set of Three 24" AmpFlex®193-24 Probes (6,500A) with 10' Leads	2140.11
Set of Three 36" AmpFlex®193-36 Probes (6,500A) with 10' Leads	2140.12
Set of Three MR193 Probes (1,000AAC/1,400ADC) with 10' Leads	2140.13
Set of Three MN193 Probes (6A/120A) with 10' Leads	2140.14
Set of Four Color-Coded 30 ft Voltage Leads (Rated 600V CAT IV, 10A)	2140.61
One AC/DC Current Probe Model MR193-BK (black connector) (1,000A AC/1,400A DC)	45344EL
AC Current Probe Model MN93-BK (200A)	45624EL
AC Current Probe Model SR193-BK (1200A)	45625EL

Hoyt Diris A40 Universal Multi-Function Energy Meter

The Diris A40 series offers multi-measurement, for energy metering and energy management in 4 quadrants, monitoring of parameters, control /command, quality (harmonics, sags, swells, and cut offs) and communication of LV and HV networks.

- **Reduces Operating Costs**
- **Cuts Down on Production Losses**
- **Optimizes Maintenance Costs**
- **Improves the Performance on the Installation**
- **Stand-Alone Unit, with External Plug-In Modules**

- **Backlit LCD Display, Enabling 8 Values Including 4 Measurements, 3 Bargraphs For I1, I2, I3, and Energy Meter**
- **Six-Button Front-Panel for Direct Access**
- **Connection Test Function Alarm Feature**

Ordering Information

Description	Order #
Multi-function Energy Meter	H-48250A40
Transcat Accredited Calibration	Call

Amprobe TMA5 Mini-vane Anemometer

Pocket size, compact design mini-vane Anemometer.

- **Measures: Air Velocity, Temperature, Humidity, Dew Point, Wet Bulb, Wind-Chill and Ambient Temperature**

- **Selectable Wind Units: KNT (Knot), BF (Beaufort), ft/m (Feet per Minute), M/h (Mile per Hour), m/s (Meter per Second), km/h (Kilometer per Hour)**

- **Selectable Temperature Units °C or °F**

- **Max Wind Speed Display**

- **Quick Measurement Response**

- **External Temperature Probe**

- **Easy, Two-Button Operation**

- **Data Hold**

Ordering Information	
Description	**Order #**
Mini-vane Anemometer	TMA5

Extech 45118 & 45158

Mini Thermo-Anemometer w/RH and Temp

Pocket air velocity meters with displays of temperature, relative humidity and dew point.

- **Fold up Protective Housing Extends to 9" for Better Reach**

- **Large Dual Display of Air Velocity and Temperature**

- **Data Hold to Freeze Most Recent Display**

- **Auto Shutoff 20 Minutes After Last Key is Pressed**

- **Water Resistant Housing Floats and Drop Tested to 6 Feet**

- **Complete with CR2032 Lithium Battery and Lanyard**

- **Measures ft/min, MPH, m/s, km/h, Knots and Beaufort Force**

- **Selectable Averaging Function of 5, 10, or 13 Second Intervals**

- **Replaceable Non-Corrosive Plastic Wind Vane (Impeller)**

- **Measures from 0 to 122°F (-18 to 50°C)**

- **Dual Display of Air Velocity and Relative Humidity (45158)**

- **Measures RH from 10% to 95% (45158)**

- **Measure Dew Point from 32 °F to 122 °F (45158)**

Ordering Information	
Description	**Order #**
Mini Thermo-Anemometer with Temperature	45118
Mini Thermo-Anemometer w/ Temp+Humidity	45158

Amprobe TMA10A Anemometer/Thermometer

*Ideal for technicians measuring Heat/Ventilation/Air Conditioning/
Refrigeration/Wind Flow and Temperature.*

- **Measure Air Velocity or Air Flow**
- **User Inputs Surface Area for Accurate CFM**
- **Measures Temperature to 122º F, Thermistor Technology**
- **Continuous Moving Average for up to Two Hours**
- **MIN/MAX/AVG Reading on a Single Point**
- **Air Velocity Average for Multiple Points**
- **Data Hold to Freeze Measurement Display of Both Readings**
- **Obtain Air Flow (CFM) Average for Multi-Point**
- **Log Both Air Flow and Temperature**
- **Durable Plastic Carrying Case Promotes Portability**
- **RS232 Interface Output with Optional Software and Cable, TM-SW**

TMA10A ▶

Ordering Information

Description	Order #
TMA10 Anemometer/Thermometer	15790AN
RS232 Cable, Software	98394TE

Extech Thermo-Anemometers

Large display of Airflow or Air Velocity plus model with built-in IR Thermometer.

- **Model AN200 Features Built-In Non-Contact IR Thermometer (Patented)**
- **Simultaneous Display of Ambient Temperature and Air Flow or Air Velocity**
- **Twenty Point Average Function for Air Flow**
- **Data Hold, MIN/MAX, Auto Power Off**
- **Complete with Vane Sensor with 3.9' (120cm) Cable, 9V Battery, Protective Rubber Holster, and Carrying Case**
- **Up to Eight Easy to Set Area Dimensions (ft² or cm²) are Stored in the Meter's Internal Memory**

AN200 ▶

Specifications

	Range	Resolution	Accuracy
Air Velocity	0.40 to 30.00 m/s 1.4 to 108.0 km/h 80 to 5,900 ft/min 0.9 to 67.0 mph 0.8 to 58.0 knots	0.01 m/s 0.1 km/h 1 ft/min 0.1 mph 0.1 knots	± (3% + 0.20 m/s) ± (3% + 0.8 km/hr) ± (3% + 40 ft/m) ± (3% + 0.4 mph) ± (3% + 0.4 knots)
Air Temperature	14° to 140° F (-10° to 60° C)	0.1° F/°C	4.0° F (2.0° C)
IR Thermometer (AN200 Only)	-58° to -4° F (-50° to -20° C) -4° to 500° F (-20° to 260° C)	0.1° F/°C 1° F/°C	±9.0° F (5.0° C) ±2% of reading or ±4°F/2° C, whichever is greater
Airflow (AN100)	0 to 9,999 CMM (m³/min) 0 to 9,999 CFM (ft³/min)	1 1	
Airflow (AN200)	0-999,999 m³/min 0-999,999 ft³/min	0.1 0.1	
Dimension/Weight	7x2.9x1.3" (178x74x33mm) / 1.6 lbs. (700g)		

Ordering Information

Description	Order #
Thermo-Anemometer	15479AN
Anemometer with IR Thermometer	15480AN

Megger® Cable Height Meter

The fast, easy way to measure overhead cable height.

- **Measure the Height of Overhead Cables without Using Telescoping Measuring Sticks**
- **Simple 3- to 5-Button Operation for Fast, Effective Measurements**
- **Accuracy to ±0.1%**

- **No Physical Connection to Cables or Wires Required to Obtain a Measurement**
- **Lightweight with Hand-Held Portability**
- **Calibration- and Maintenance-Free Operation**

These cable height meters measure the height of overhead cables and bridges up to 75'. At the push of a button, these hand-held instruments emit an ultrasonic sound to pinpoint the height of up to six overhead lines at a time. The transmitter emits short bursts of sound, then the microprocessor calculates the elapsed time for the sound to "bounce back" from the cable to the instrument. The built-in microprocessor compensates for temperature as detected by the unit's type K thermocouple.

Each Unit Includes: 9V alkaline battery, carrying pouch and instruction manual.

Specifications			
Order#	5795E-4	5795E-5	5795E-6
Measuring Ranges			
Minimum Cable Size			
1" diameter	7–35'	7–50'	7–75 ft
1/2" diameter	7–35'	7–50'	7–75 ft
1/4" diameter	7–35'	7–50'	7–75 ft
1/8" diameter	7–35'	7–50'	7–75 ft
Number of Lines	1–6	1–6	1–6
Switchable Dual Beam	Yes	Yes	Yes
Manual and Auto Temp.	—	Yes	Yes
Switchable Feet-Meter	Yes	Yes	Yes
Resolution	0.250"	0.250"	0.250"
Accuracy	0.1% ±1 digit		
Measuring Frequency	40 kHz		
Power Supply	9V alkaline battery provides approx. 50,000 readings		
Size/Weight	3 x 4 x 8.5" HWD/1.1 lbs		

Ordering Information	
Description	Order #
Cable Height Meter, CHM2000	5795E-4
Cable Height Meter, 659600	5795E-5
Cable Height Meter, 659600E	5795E-6

Improve your Tool Tracking through Transcat's Asset Management System: CalTrak® Online

Take Control of your Tools!

- ✔ **Tool Location**
- ✔ **Calibration Documentation**
- ✔ **Notifications**
- ✔ **Anytime, Anywhere**

For more information: *Call 1.800.779.5289 or visit Transcat.com/windenergy*

Chatillon® CDR Series Digital Crane Scale

The CDR Series is available in five capacities with a measurement accuracy of better than 0.2% full scale.

- Display in lb or kg Units of Measure
- Rugged Housing with Simple Keypad Operation
- Peak Weight Capture
- Remote Controller - Operate Scale from 100 ft 30m) Away

- Bright 25mm LCD Display for Easy Viewing
- 300% Safety Overload, 500% Ultimate Overload
- Rechargeable Battery with Power Converter/Surge Protector

Ordering Information	
Description	Order #
Capacity: 66lb x 0.02lb, 30kg x 10g	CDR-66-N
Capacity: 132lb x 0.05lb, 60kg x 20g	CDR-132-N

Ordering Information	
Description	Order #
Capacity: 330lb x 0.1lb, 150kg x 50g	CDR-330-N
Capacity: 660lb x 0.2lb, 300kg x 100g	CDR-660-N
Capacity: 1320lb x 0.5lb, 600kg x 200g	CDR-1320-N

Chatillon® CCR Series Digital Hanging Scale

The CCR Series is an economical, battery-operated, digital hanging scale available in five capacities with a measurement accuracy of better than 0.2% full scale.

- Display in lb or kg Units of Measure
- Rugged Housing with Simple Keypad Operation
- Peak Weight Capture
- Bright 25mm LCD Display for Easy Viewing

- 200% Safety Overload, 500% Ultimate Overload
- Battery Operated (Uses Three AA Batteries 4/5V) with Auto Shut-Off

Ordering Information	
Description	Order #
Capacity: 22lb x 0.02lb, 10kg x 10g	CCR-22-N
Capacity: 44lb x 0.01lb, 20kg x 10g	CCR-44-N

Ordering Information	
Description	Order #
Capacity: 88lb x 0.02lb, 40kg x 20g	CCR-88-N
Capacity: 220lb x 0.1lb, 100kg x 50g	CCR-220-N
Capacity: 440lb x 0.2lb, 200kg x 100g	CCR-440-N

Chatillon® CMA Series Digital Crane Scale

The CMA Series features an easy-to-read LED display and rugged cast-aluminum housing ideal for warehouse applications.

- Display in lb or kg Units of Measure
- Remote Controller - Operate Scale from 100 ft (30m) Away
- Peak Weight Capture

- 150% Safety Overload, 500% Ultimate Overload
- Rechargeable Battery with Power Converter/Surge Protector

Ordering Information	
Description	Order #
Capacity: 1,320lb x 0.5lb, 600kg x 0.1kg	CMA-1320-N
Capacity: 2,200lb x 0.5lb, 1,000kg x 0.2kg	CMA-2200-N
Capacity: 4,400lb x 1lb, 2,000kg x 0.5lb	CMA-4400-N

Ordering Information	
Description	Order #
Capacity: 6,600lb x 2lb, 3,000kg x 1kg	CMA-6600-N
Capacity: 11,000lb x 2lb , 5,000kg x 1kg	CMA-11K-N
Capacity: 22,000lb x 5lb, 10,000kg x 2kg	CMA-22K-N

Pac-Kit First Aid Kits

With over a century of medical product manufacturing behind it, the Pac-Kit logo stands in front of a history of the highest standards of reliability, product quality, and customer service.

10 Man First Aid Kit
Weatherproof Plastic Kit

Contains:
16 ea. 1" x 3" Adhesive Strips
4 ea. 3"x3" Sterile Gauze Pads
1 ea. 8"x10" Lamino Pad
1 ea. ½"x5yd Adhesive Tape
1 ea. 4"x5yd Non-Sterile Stretch Gauze
1 ea. 40" Triangular Bandage
1 ea. Antiseptic Wipes/First Aid Burn Cream
30 ea. Antiseptic Wipes
6 ea. First Aid Burn Cream Packets
2 pairs Latex Exam Gloves
1 ea. Scissors
1 ea. Forceps
1 First Aid Instructions

Ordering Information

Description	Order #
10 man first aid kit	6060

50 Man First Aid Kit
Weatherproof Plastic Kit

Contains:
100 ea. 1" x 3" Adhesive Strips
10 ea. 4"x4" Sterile Gauze Pads
2 ea. 8"x10" Sterile Combine Pad
1 ea. ½"x 5 yd Adhesive Tape
2 ea. 4"x 5 yd Non-Sterile Stretch Gauze
2 ea. 40" Triangular Bandage
1 ea. Antiseptic Wipes/First Aid Burn Cream
30 ea. Antiseptic Wipes
6 ea. First Aid Burn Cream Packets
2 ea. Instant Cold Pack
2 pairs Latex Exam Gloves
1 ea. Scissors
1 ea. Forceps
1 First Aid Instructions

Ordering Information

Description	Order #
Contractor's Weatherproof Plastic Kit	6088

25 Man First Aid Kit PLUS
Weatherproof Plastic First Aid Kit

Contains:
100ea. 1" x 3" Adhesive Strips
1 ea. Wound Dressing Pack
1 ea. 5"x9" Sterile Lamino Pad
5 ea. 4"x4" Sterile Gauze Pads
1 ea. 4"x5yd Non-Sterile Stretch Gauze
1 roll ½"x5yd Adhesive Tape
1 pair Latex Exam Gloves
1 ea. 40" Triangular Bandage
1 ea. Antiseptic Wipes/First Aid Burn Cream
30 ea. Antiseptic Wipes
6 ea. First Aid Burn Cream Packets
12 ea. Aspirin Tablets
1 ea. 1 oz. Eye Flush & Dressing Pack
1 ea. 1 oz. Eye Flush Bottle
2 ea. Sterile Eye Pads
2 ea. Adhesive Eye Strips

1 ea. Instant Cold Pack
1 pair Latex Exam Gloves
1 ea. Scissors
1 ea. Forceps
First Aid Instructions

Ordering Information

Description	Order #
Weatherproof Plastic 25 Man Vehicle First Aid Kit	6430

50 Man First Aid Kit PLUS
Weatherproof Plastic First Aid Kit

Contains:
100 ea. 1" x 3" Adhesive Strips
2 ea. Wound Dressing Pack
2 ea. 5"x9" Sterile Lamino Pad
10 ea. 4"x4" Sterile Gauze Pads
2 ea. 4"x5yd Non-Sterile Stretch Gauze
2 rolls ½"x5yd Adhesive Tape
2 pairs Latex Exam Gloves
2 ea. 40" Triangular Bandage
2 ea. Antiseptic Wipes/First Aid Burn Cream
60 ea. Antiseptic Wipes
2 ea. First Aid Burn Cream Packets
24 ea. Aspirin Tablets
1 ea. 4oz. Eye Flush, Eye Cup, Pads & Strips
1 ea. 4oz. Eye Flush Bottle
4 ea. Sterile Eye Pads

4 sets Adhesive Eye Strips
1 ea. Sterile Eye Cup
2 ea. Instant Cold Pack
1 ea. 2"x5yd Elastic Bandage
1 ea. Scissors
1 ea. Forceps
First Aid Instructions

Ordering Information

Description	Order #
Weatherproof Plastic 50 Man Vehicle First Aid Kit	6490

Industrial 3 Shelf First Aid Station
Weatherproof Plastic First Aid Kit

Contains:
50 ea. 1"x3" Heavy Woven Fabric Strips
10 ea. 2"x3" Heavy Woven X-Large Strips
25 ea. Heavy Woven Knuckle Bandages
25 ea. Heavy Woven Fingertip Bandages
1 ea. Wound Treatment Pack
10 ea. 2"x2" Sterile Gauze Pads
10 ea. 3"x3" Sterile Gauze Pads
10 ea. 4"x4" Sterile Gauze Pads
1 ea. 8"x10" Abdominal Pads
2 ea. 2"x5yd Non-Sterile Stretch Gauze
2 ea. 4"x5yd Non-Sterile Stretch Gauze
1 ea. ½"x10yd Cloth Tape
1 ea. 1"x10yd Cloth Tape
1 pair Latex Exam Gloves
2 ea. 40" Triangular Bandages
100 ea. Alcohol Antiseptic Wipes
25 ea. Bzk. Chloride Antiseptic Towelettes

25 ea. First Aid/Burn Cream
25 ea. Triple Antibiotic Ointment
1 ea. 4 oz. Eye Flush, Eye Cup, Pads & Strips
1 ea. Bottle of sterile isotonic buffered solution
4 ea. Sterile Eye Pads
1 4ea. Adhesive Eye Strips
1 ea. Sterile Eye Cup
1 ea. First Aid Burn Spray 4 oz.
1 ea. Antiseptic Spray 4 oz.
100 ea. Extra Strength Non-Aspirin Tablets
100 ea. 3" Cotton Tipped Applicators
2 ea. Instant Cold Pack, Large
1 ea. 4"x5yd Elastic Bandage
10 ea. Latex Exam Gloves
1 ea. Metal Scissors
1 ea. Plastic Forceps
1 ea. First Aid Instruction Booklet

Ordering Information

Description	Order #
Industrial 3 Shelf First Aid Station	6155

Pyramex PM2010
Ear Muffs
Double nylon headband.

- NRR 22db
- Soft Foam Ear Cups
- Individually Packaged
- Exceeds ANSI S3.19 Requirements

Ordering Information	
Description	**Order #**
Ear Muffs NRR 22db	PM2010

Pyramex PM3010
Ear Muffs
Fold-away, padded headband.

- NRR 27db
- Adjustable to Fit All Sizes
- Soft Foam Ear Cups
- Individually Packaged
- Fold-away, Padded Headband
- Exceeds ANSI S3.19 Requirements

Ordering Information	
Description	**Order #**
Ear Muffs NRR 27db	PM3010

Pyramex PM4010
Electronic Ear Muffs
Offers electronic suppression of dangerous impulse noises common to industrial users.

- Amplifies surrounding voices, important signals and warnings
- NRR 30db when used in neutral position
- Soft head pad for all day comfort
- Foam-filled padded ear cups fit securely and comfortably over the ear
- Electronics are designed to limit amplified sound levels to 82db
- Batteries not included
- Individually packaged
- Exceeds ANSI S3.19 Requirements

Ordering Information	
Description	**Order #**
Electronic Ear Muffs NRR 30db	PM4010

Pyramex PM5010
Ear Muffs
Fold-away, padded headband.

- NRR 34db
- Low Profile Design
- Soft foam ear cups
- Individually packaged
- Adjustable to fit all sizes
- Exceeds ANSI S3.19 Requirements

Ordering Information	
Description	**Order #**
Ear Muffs NRR 34db	PM5010

Pyramex DP1000/1001
Disposable Earplugs

- DP1001 Uncorded Earplugs
- DP1000 Corded Earplugs
- ANSI S3.19 Requirements
- CE EN 352-2-2002 Certification

Ordering Information	
Description	**Order #**
Disposable Earplugs	DP1000
Disposable Earplugs Corded	DP1001

Pyramex RP2001
Reusable Earplugs

- RP2001 Reusable Corded Earplugs
- ANSI S3.19 Requirements

Ordering Information	
Description	**Order #**
Reusable Earplugs	RP2001

Rendevous Safety Sun Glasses

Align lens angle to proper position for work application with ratcheting lens pitch adjustment

- General purposes for indoor applications that require impact protection
- Offers protection from excessive glare
- Provides 99% protection from harmful UV-A and UV-B rays
- 100% polycarbonate lenses
- Scratch-resistant lenses
- Crafted from high grade polycarbonate, machined from virgin materials and formed to shape
- Temples adjust to four different lengths.
- Adjustable nose pad conforms to broad range of bridge sizes
- Clip and tension mounted 9.5 base curved lens eliminates screws or rivets for easy and quick lens replacement
- Exceeds ANSI Z87.1-2003 High Impact Requirements
- CE EN166 Certified

Rendevous with grey lens

Ordering Information

Description	Order #
Rendevous - Clear Lens Black Frame	SB2810S
Rendevous - Clear Lens Black Frame Anti fog box of 12 Glasses	SB2810ST-12
Rendevous - Grey Lens Black Frame	SB2820S

Solara Safety Sun Glasses

Built in nose pads elevate frame for precision fit and weightless wear.

- General purposes for indoor applications that require impact protection
- Offers protection from excessive glare
- Provides 99% protection from harmful UV-A and UV-B rays
- 100% polycarbonate lenses
- Scratch-resistant lenses
- Straight back temples with rubber insert provides comfort fit
- Extended lens provides complete coverage
- Exceeds ANSI Z87.1-2003 High Impact Requirements

Solara with Grey lens

Ordering Information

Description	Order #
Solara - Clear Lens Black Frame	STG4310D
Solara - Grey Lens Black frame	STG4320D
Solara - I/O Lens Black Frame	STG4370D

Ztek Safety Glasses

Economical wrap-around single lens provides full panoramic view

- General purposes for indoor applications that require impact protection
- Offers protection from excessive glare
- Provides 99% protection from harmful UV-A and UV-B rays
- 100% polycarbonate lenses
- Scratch-resistant lenses
- Soft non-slip rubber temple tips provide non-binding fit
- Integrated nose piece
- Exceeds ANSI Z87.1-2003 High Impact Requirements
- CE EN166 Certified / CAN/CSA Z94.3-02

Ztek with amber lens

Ordering Information

Description	Order #
Ztek - Clear Lens	S2510S
Ztek - Clear Lens Anti Fog	S2510ST
Ztek - Grey Lens	S2520S
Ztek - Amber Lens	S2530S

Falltech Fall Protection

Our Personal Fall Arrest Systems meet or exceed the highest industry standards, including ANSI Z359.

Wrap Tech Lanyards

- ClearPack Shock-Absorber Limits Arresting Forces to 900 – 1,000lbs or Less
- 1" Leg Webbing has a Tensile Strength of 9,800lbs and Features Embedded Wear-Indicating Threads
- 1-5/8" Tubular Webbing Protects the Primary Webbing of the Leg from Cuts and Abrasion
- Reinforced Gate Carabiner Greatly Reduces the Possibility of Roll-Out and Side-Loading Making This one of the Safest Lanyards for any Application
- Meets the Requirements of OSHA 1926

6' Shock Absorbing lanyard features single-leg construction and a carabiner with a reinforced gate which is designed to withstand a 5,000 lb load in any direction. This allows the lanyard to be used in tie-back applications where the lanyard is wrapped around a structural member and connected to itself as an anchorage alternative. It may also be connected directly to a horizontal lifeline, or used for conventional tie-off. These exceptions are allowed under OSHA 1926.502(d)(6)(i). WrapTech lanyards also feature jacketed web for extra protection from wear as well as our forged Offset snap hook at the attachment end.

Ordering Information

Description	Order #
6' Web, 1 Offset Snap Hook, (1) 5k Gate Carabiner	7241
6' Y-Leg, Web, 1 Offset Snap Hook, (2) 5k Gate Carabiners	7241-Y

Positioning Lanyard

- 9/32" Grade 80 Chain has a Tensile Strength of 10,000lbs
- DoubleSwivel Rebar Hook Features a 2-1/2" Gate Opening, Swivels in Two Directions and has a Built-In Load-Indicator
- Forged Offset Clevis Snap Hooks are Durable and Eliminate the Need for Unnecessary Parts and Additional Weight
- Meets the Requirements of OSHA 1926 and ANSI Z359 and the new ANSI A10.32

Rebar positioning device features grade 80 chain and DoubleSwivel load-indicating rebar hook for anchorage. Also features 2 forged Offset Clevis snap hooks for attachment to the side D-rings on your full body harness or positioning belt.

Ordering Information

Description	Order #
Chain, 2 Snap Hooks, 1 #18 Rebar Hook, with Swivel	7250

Internal Lanyards 100% Tie Off

- Internal Continuous-Length Shock Absorbers Limit Arresting Forces to 900lbs or Less
- Light-Weight Design Makes this an End-User Favorite
- The #18 Rebar Hooks Have a 2-1/4" Gate Opening and Allows for a Broader Range of Connections
- 1-1/4" Tubular Webbing has a Tensile Strength of 6,000lbs
- Meets or Exceeds the Requirements of OSHA 1926 and ANSI Z359

6' Shock Absorbing lanyard features Y-leg construction for 100% tie-off and utilizes 2-1/4" tubular polyester webbing for resistance to UV light and abrasion. Also features a double-locking snap hook at the attachment end and #18 rebar hooks at the anchorage ends.

Ordering Information

Description	Order #
6' Y-Leg, Web, 1 Snap Hook, 2 #18 Rebar Hooks: Aluminum Hardware	7259Y3A

Heavy Weight Lanyards

- Special Internal Shock Absorber Limits Arresting Forces to 1,500lbs or Less
- 1-5/8" Tubular Webbing has a Tensile Strength of 8,500lbs
- Meets the Requirements of OSHA 1926 for Individuals Weighing 300 – 400lbs

6' Shock Absorbing lanyard is a high-capacity connecting device designed to accommodate individuals from 300 – 400lbs while keeping the arrest forces below OSHA limits. Features single-leg construction and utilizes 1-5/8" tubular polyester webbing and our Internal continuous length shock-absorber. Also features forged double-locking Offset snap hooks at the attachment and anchorage ends.

Ordering Information

Description	Order #
6' Web, 2 Offset Snap Hooks	7246
6' Y-Leg, Web, 3 Offset Snap Hooks	7246Y

Petzl ABSORBICA-Y Lanyard

Energy absorber with integrated double lanyard.

- **Designed for Passing Intermediate Anchor Points on Fixed Protection**
- **The Energy of the Fall is Absorbed by the Tearing of Specific Webbing**
- **Mesh Pouch with Zipper Protects the Energy Absorber from Abrasion or Projections and Allows Regular Verification of the Absorber's Condition**

- **Energy Absorber End Equipped with STRING (Webbing Protection and Holds Carabiner in Place)**

Ordering Information

Description	Order #
Petzl ABSORBICA-Y Shock Absorbing Lanyard, 1.75M	L70150YM

Petzl NAVAHO● BOD Fall Arrest Harness

Versatile work positioning and fall arrest harness.

- **Wide, Semi-Rigid Waistbelt for Excellent Support**
- **Waistbelt and Suspension Seat Lined with Breathable Perforated Foam for Maximum Comfort when Suspended**
- **Foam Shoulder Straps are Widely Spaced to Reduce Neck Chafing and are Linked to the Directional Ventral Connector for Easy Donning**
- **If the Waistbelt is Weighted, the Load is Transferred to the Shoulder Straps, which Distribute it Over the Shoulders**

- **The Ventral Attachment Point Distributes the Weight More Evenly Between the Waistbelt and the Leg Loops During Suspended Work**
- **The Two Lateral Attachment Points Transfer the Weight Evenly Around the Waistbelt for Comfort When Leaning Back in the Belt (With Support for the Feet)**
- **A Sternal and a Dorsal Attachment Point for Connecting a Fall Arrest System**

- **A Rear Attachment Point on the Waistbelt for Connecting a Restraint Lanyard**
- **Three Equipment Loops with Protective Sheath**
- **Slots for Tool Holder**
- **Waistbelt and Shoulder Straps Equipped with Self-Locking Doubleback Buckles**

Ordering Information

Description	Order #
Petzl NAVAHO® BOD Fall Arrest Harness	C710F-2B

Kuhlmann El-varme A/S Heating Blankets

Kuhlmann El-varme A/S heating blankets are specially designed for curing the leading and trailing edges of wind turbine blades.

- **Operate at a Stable Temperature of Approximately 60º or 80º C, when Mounted Correctly on the Blade Edges**

Once the blades have been cured, grounded and polished, it is possible to carry out any required procedures with no risk of grinding non-cured material and thus releasing hazardous substances into the atmosphere.

Ordering Information

Description	Order #
Heating Blanket: 1300-1300mm/51in – 51in, 110V 400W JumoThermostat 0-90˚C (32-194˚F)	10-9486B
Heating Blanket: 600-600mm/23.6in – 23.6in, 110V 160W, JumoThermostat (0-90˚C, 32-194˚F)	08-9323
Heating Blanket: 2000-1000mm/78.7in – 39.3in, 110V 745W, JumoThermostat (0-90˚C, 32-194˚F)	08-9030A
Heating Blanket: 1000-500mm/39.3in - 19.6in, 110V 220W, JumoThermostat (0-90˚C, 32-194˚F)	08-9287A
Heating Blanket: 3000-500mm/117.9in - 19.60in, 110V 550W, Silicone Red 0-120˚C (32-248˚F)	08-9288A
Heating Blanket: 1000-590mm /39.3 in – 23.2 in, 110V 1700W, JumoThermostat (0-90˚C, 32-194˚F)	08-9294E
Heating Blanket: 700-700-1000mm/ 27.5in – 27.5in – 39.3in, 110V 200W, JumoThermostat (0-90˚C, 32-194˚F)	10-9488

Petzl VERTEX• BEST Helmets

Comfortable helmet for work at height and rescue.

- **Six-Point Mesh Liner Conforms to the Shape of the Head for Improved Comfort**
- **Shock Absorption Achieved Through Deformation of the Outer Shell**
- **Centerfit Adjustment System Ensures Centering and Optimal Stability of the Helmet on the Head**
- **The Helmet's Unventilated Shell Protects Against Electrical Hazards and Molten Metal Splash**

- **Designed to Accept Additional Accessories Including Hearing Protection, Face Shields and Headlamps**
- **Chin Strap Designed to Limit Risk of Losing Helmet During a Fall (Strength Greater than 50 daN)**
- **Additional Colors Available**

Ordering Information	
Description	**Order #**
Petzl VERTEX® BEST Helmet, Yellow	A10BYA
Petzl VERTEX® BEST Helmet, Yellow, CSA Version	A10BYC

Petzl VERTEX• VENT Helmets

Comfortable ventilated helmet for work at height and rescue.

- **Six-Point Mesh Liner Conforms to the Shape of the Head for Improved Comfort**
- **Shock Absorption Achieved Through Deformation of the Outer Shell**
- **Centerfit Adjustment System Ensures Centering and Optimal Stability of the Helmet on the Head**
- **Ventilation Holes with Sliding Shutters Allow the Ventilation to be Adjusted as Needed from the Outside**

- **Designed to Accept Additional Accessories Including Hearing Protection, Face Shields and Headlamps**
- **Chin Strap Designed to Limit Risk of Losing Helmet During a Fall (Strength Greater than 50 daN)**
- **Additional Colors Available**

Ordering Information	
Description	**Order #**
Petzl VERTEX® VENT Helmet, Red	A10VRA

Call for additional colors & ratings.

Petzl PIXA 3 Headlamp

Multi-beam headlamp adapted for close-range work, for moving around and for long-range vision.

- **Mounting Plate For Helmets Without Headband (Included)**
- **Three Lighting Modes**
- **Constant Lighting, Guaranteed Lighting Performance that Does Not Diminish During its Entire Lifetime**
- **Reserve Lighting when Batteries are Almost Discharged: Lights to 15 Meters for a Minimum of 10 Hours**
- **Easy to Use, Even when Wearing Gloves**

- **Durable with Resistance to Falls, Impacts and Crushing**
- **Comfortable Adjustable Headband, Easily Detached for Washing**
- **Battery Charge Indicator: Repetitive Flasher and Red Light**
- **Waterproof to -1M for 30 Minutes (IP 67), No Maintenance Required after Immersion**

Ordering Information	
Description	**Order #**
Petzl PIXA 3 Headlamp	E78CHB

National Safety ARC H$_2$O Rainwear System

ARC H$_2$O is one of the most advanced rainwear systems in the safety apparel industry.

- **High Arc Rating (ASTM F 1891)**
- **Low Flash Fire Body Burn (ASTM F 2733)**
- **Hi-Visibility Rated (ANSI/ISEA 107)**
- **Resistant to Most Chemicals, Acids, Salts, and Alkalies**
- **100% Waterproof with Dielectrically Welded Seams**

30" Length Jacket
- **Exclusive Design for Electric Arc and Flash Fire Protection**
- **Contoured Collar with a Tuck Away Attached Hood**
- **FR Hook and Loop Wrist Cuff Adjusters**
- **Two Reinforced Front Patch Pockets with FR Hook and Loop Closure**
- **Strategically Placed Back Vent with**

- **FR Mesh Allows for Breathability by Maximizing Airflow**
- **D-Ring Opening for Use with Fall Protection Harness**
- **Key Stress Points are Reinforced for Added Durability**
- **360˚ Hi-Vis Reflective Striping**
- **Also Available as a 48" Length Trench Coat**

Bib Pant: Also Available in an Elastic Waist Pant
- **Quick Release Suspender System for Easy Donning and Doffing**
- **Front Snap Fly Closure**
- **Fr Hook and Loop Leg Cuff Adjusters**
- **360˚ Hi-Vis Reflective Striping**

Ordering Information

Description	Order #
ANSI FL Yellow 30" Length Jacket (Arc Rating/ATPV 19 cal/cm2) Class 2, Level 2	R30RL*05
ANSI FL Yellow Bib Pant (Arc Rating/ ATPV 19 cal/cm2) Class E, Level 2	R40RL*14
ANSI 107 Class 2 FL Yellow Arc H20 30" Jacket, Bib Pant & Mesh Equipment Bag (Arc Rating = 19 cal/cm2)	R31RL*06
ANSI 107 Class 3 FL Yellow Arc H20 Total Protection Kit	KITRLCV08*C3

*M, L, XL

KITRLCV08*C3

Call for additional sizes & APTV ratings.

National Safety ARC Extreme ARC Protection

ARC Extreme provides arc protection while still being windproof, waterproof and breathable.

- **ARC and Flame Resistance**
- **Windproof, Waterproof & Breathable**
- **Resistant to Most Chemicals, Acids, Salts and Alkalies**
- **Fabric Will Not Melt, Drip, Ignite or Break Open Conforming to the Referenced Safety Standards**
- **Superior Strength Overcast Seams with Heat Sealed Technology**

30" Length Jacket:
- **Box Sleeve Styling for Added Comfort and Mobility**
- **Tuck Away Attached Hood in Collar with Adjustable Drawcord on Hood**
- **Adjustable Drawcord at Waist to Provide a Secure Safe Fit**
- **Hidden Heavy Duty Front Zipper Closure with FR Hook & Loop Tabs**

- **Optional Zip-In Liner Provides Extra Insulation on Cooler Days**
- **FR Hook & loop Tab Wrist Cuff Adjusters**
- **Two Large Front Pockets with FR Hook & Loop Closure**
- **Two Pass Through Slash Pockets to Access Inner-Clothing**
- **One Radio Chest Pocket with FR Hook & Loop Closure**
- **Hi-Vis Reflective Trim**

Bib Pant:
- **Heavy Duty Quick Release Suspender System**
- **Hidden Front Zipper Closure**
- **Snap Fly Pant Front**
- **Hidden Side Zipper with FR Hook & Loop Tabs on Pant Legs**
- **Hi-Vis Reflective Trim**

Ordering Information

Description	Order #
30" Navy Jacket with Reflective Trim	R22EN*17
Navy Bib Pant with Reflective Trim	R14EN*18

*M, L, XL

R22EN*17

Call for additional sizes

R14EN*18

National Safety ARC Extreme Hybrid ARC Protection

Arc Extreme Hybrid is certified to arc flash, fire and high visibility and provides the best in protection, comfort and durability.

- **National Safety IGXTM Technology Incorporates Extensive Waterproofing Through its Comprehensive Material and Design to Keep You Dry**
- **DWR Treatment Allows Water to Bead Up and Roll Off Outer-Shell**
- **Advanced Bi-Component ePTFE Breathable Membrane**

- **Scripted Pattern Design Featuring Zero Horizontal or Outside Leg Seams Minimizing Element Seam Exposure**
- **Seams Sealed With Wider & Stronger Tape, Providing Maximum Protection and 100% Waterproofing**

Ordering Information

Description	Order #
30" Deluxe Jacket with D-Ring Harness Access	R70HN*D
Bib Overall with Quick Release Suspender System	R75HN*

*M, L, XL

Call for additional sizes

Salisbury PRO-WEAR● Flash Protection Kit

More protection and comfort than typical coat and legging solutions with head-to-toe HRC 2 protection.

- **Jackets and Overpants (ATPV Rating 8cal/cm2) Meet Current ASTM F1506 and NFPA 70E Standards**
- **Jacket is 32" Long, Has Nomex Style Wristlets, Hook and Pile Front Closure**
- **Overpants Feature a Full Elastic Waist Band with FR Hook and Pile Front Closure**

- **Loose Design and Slightly Flared Legs for Easy Off and On Over Existing Work Clothing**
- **Complete Kit Includes: 8 Cal/CM2 Jacket, 8 Cal/CM2 Overpants, AS1000Hat, Safety Glasses, Storage Bag**

Ordering Information

Description	Order #
8 Cal/CM2 Jacket, 8 Cal/CM2 Overpants , AS1000Hat, Safety Glasses, Storage Bag	SKJP8*

*M, L, XL

Call for additional sizes & APTV ratings.

Salisbury PRO-WEAR● PPE Kit

40 CAL/CM2 "Lt" Material offers extremely LIGHTWEIGHT OPTION.

- **Kit meet NFPA 70E and Hazard Risk Category 4**
- **Kit is ATPV Rating 40cal/cm2**
- **Complete Kit includes: ARC Flash Coat, Bib Overalls, PRO-HOOD®, Hard Hat, SKBAG, and Safety Glasses**
- **"LT" Material Offers an Extremely Lightweight Option**

Ordering Information

Description	Order #
40cal/cm2: Arc Flash Coat, Bib Overalls, PRO-HOOD®, Hard Hat, SKBAG, and Safety Glasses	SK40*

*M, L, XL

Call for additional sizes & APTV ratings.

Salisbury **E011B** Safety Gloves

Salisbury gloves combine strength with flexibility and durability.

- Meet or exceed ASTM D120 and
  IEC EN60903 Standards
- High Electric & Physical Strength
- Flexibility & Durability
- 11" Overall Length Rubber Gloves
- Class 0 Electrical Insulting Gloves

Ordering Information	
Description	Order #
11" Glove Length, Class 0, Black, Size 9	E011B-9
11" Glove Length, Class 0, Black, Size 10	E011B
11" Glove Length, Class 0, Black, Size 11	E011B-11

Call for additional sizes, colors & classes.

Salisbury **E416B** Gloves

Salisbury gloves combine strength with flexibility and durability.

- Meet or exceed ASTM D120 and
  IEC EN60903 Standards
- 16" Overall Length Rubber Gloves
- Class 4 Electrical Insulting Gloves
- Standard Straight Cuff

Ordering Information	
Description	Order #
16" Glove Length, Class 4, Black, Size 9	E416B-9
16" Glove Length, Class 4, Black, Size 10	E416B-10
16" Glove Length, Class 4, Black, Size 11	E416B-11

Call for additional sizes, colors & classes.

Salisbury **Glove Bag**

Allow gloves to lay flat and last longer.

- Constructed of Heavy Duty Canvas Duck
- Double Stitched and Riveted at Stress
  Points for Extra Durability
- Feature a D Ring for Hanging in Trucks or
  on Work Belts
- Bags Feature Tapered Gussets with Wide Opening
  Tops for Easy Insertion

Ordering Information	
Description	Order #
Salisbury Canvas Glove Bag for 11" Gloves	GB112
Salisbury Canvas Glove Bag for 14" Gloves	GB114
Salisbury Canvas Glove Bag for 16" Gloves	GB116
Salisbury Canvas Glove Bag for 18" Gloves	GB118

SALISBURY
ALWAYS WEAR YOUR GLOVES

Pelican Carrying Cases

They are absolutely water-tight, and dustproof.

- **So Durable and Tough, They Carry an Unconditional Lifetime Warranty Against Damage or Breakage ("Does not Cover Shark Bite, Bear Attack, or Children Under Five")**

- **"Pick-n-Pluck" Foam Included with Each Case. Padded Divider Sets Available**

- **An Optional Custom Die-Cut Foam is Available for Orders of Over 100 Units**

- **Custom Imprinting with Your Logo is Also Available (Minimum Quantity 50)**

To Order Cases:
Insert Color Code in the Box
C= Charcoal
S= Silver
Y= Yellow

1610 & 1620 Cases both come with an extendable handle & wheels

Ordering Information

Description	Order #
1120 Case 7.25" x 4.75" x 3.06"	1120-❑
1150 Case 8.18" x 5.68" x 3.62"	1150-❑
1200 Case 9.25" x 7.12" x 4.12"	1200-❑
1300 Case 9.87" x 7.00" x 6.12"	1300-❑
1400 Case 11.81" x 8.87" x 5.18"	1400-❑
1450 Case 14.62" x 10.18" x 6.00"	1450-❑

Ordering Information

Description	Order #
1470 Case 15.62" x 10.43" x 3.75"	1470-❑
1490 Case 17.75" x 11.37" x 4.12"	1490-❑
1500 Case 16.75" x 11.18" x 6.12"	1500-❑
1520 Case 17.87" x 12.75" x 6.75"	1520-❑
1550 Case 18.43" x 14.00" x 7.62"	1550-❑
1600 Case 21.43" x 16.50" x 7.87"	1600-❑

Ordering Information

Description	Order #
1610 Case 21.68" x 16.62" x 10.56" w/ wheels	1610-❑
1620 Case 21.37" x 16.31" x 12.56" w/ wheels	1620-❑
1650 Case 28.50" x 17.37" x 10.50" w/ wheels	1650-❑
1700 Case 35.75" x 13.50" x 5.25" w/ wheels	1700-❑
1750 Case 50.50" x 13.50" x 5.25" w/ wheels	1750-❑

Transcat Complete Tool Kits.
Save Time, Money & Hassle

Technicians Tool Kit

Other Kits Available

Service and Maintenance Kit | Blade Repair Kit | Site Kit | Commissioning Kit

Torque Wrenches
Multimeters
Hand Tools
Process Tools
DLROs®
TTRs™
Chisels / Prybars
Electric Power Tools
Extension Cords

Insulation Testers
Files & File Sets
PPE
Gloves
Measuring Tools
Eye Protection
Fall Protection
See page 51 for more details.

WRIGHT TOOL STAHLWILLE Megger. FLUKE.

For more information: *Call 800.779.5289 or visit Transcat.com/windenergy*

Klein Tools

Load Rated, Top Closing Bucket – 17"H.

Rated for 150lbs, this bucket can be zipped closed at the top to prevent items from falling out at heights.

- **Top of Bucket Zips Closed**
- **Load Rated: 150lbs**
- **Accommodates Standard 5 Gallon Buckets**
- **Body Constructed of Heavy-Duty No. 1 Canvas**
- **Web Strap Extends Down the Side of the Bucket**
- **Leather Reinforced Bottom Extends 3" up the Side**
- **Dimensions – 17"H X 14"**

Order #: 5104CLR17

Load Rated, Top Closing Torque Wrench Bucket – 36"H

Rated for 150lbs, this bucket can be zipped closed at the top to prevent items from falling out at heights.

- **Top of Bucket Zips Closed**
- **Load Rated: 150lbs**
- **Accommodates Torque Wrenches**
- **Body Constructed of Heavy-Duty No. 1 Canvas**
- **Web Strap Extends Down the Side of the Bucket**
- **Leather Reinforced Bottom Extends 3" up the Side**
- **Dimensions – 36"H x 9"D**

Order #: 5104CLR36

Load Rated, Top Closing Bucket – 22"H

Rated for 150lbs, this bucket can be zipped closed at the top to prevent items from falling out at heights.

- **Top of Bucket Zips Closed**
- **Load Rated: 150lbs**
- **Accommodates Standard 5 Gallon Buckets**
- **Body Constructed of Heavy-Duty No. 1 Canvas**
- **Web Strap Extends Down the Side of the Bucket**
- **Leather Reinforced Bottom Extends 3" up the Side**
- **Dimensions – 22"H X 14"**

Order #: 5104CLR22

Closable Bolt Pouch

Bolt pouch equipped with drawstring top to prevent items from falling out at height.

- **Includes Durable Drawstring Closing Top to Prevent Items From Falling out of the Pouch at Height**
- **Pouch Body Constructed of Heavy Duty, #4 Canvas**
- **10"H X 9"W X 5"D, Drawstring 3"H**

Order #: 5416TC

Last US Bag

Vinyl Utility Lift Bucket

Vinyl bucket preferred lift system in Hydraulic fluid environments.

- **125# Load Rating**
- **10.5" Diameter x 16" High**
- **20oz. Vinyl Body, 1000d Nylon Dry-Tight Secure Closure Flexible Lid**
- **1.5" Web Sling**
- **ABS Rigid Reinforced Bottom**
- **Steel Reinforced**

Order #: LUSB023

Canvas Tag-Line Rope Hauler

Perfect bag to store and carry tag line for load control.

- **24oz. Canvas Body**
- **20oz. Vinyl Liner**
- **2" Web Sling**
- **15"d x 25"h**
- **25# Lift Rating**
- **Drawstring Closure**

Order #: LUSB009

Canvas Toolmaster Bag

Single compartment zippered Tool Bag with end grab handles

- **24oz. Canvas Body**
- **Steel Reinforced**
- **20oz. Vinyl Bottom**
- **Wide Opening Mouth**
- **18"W x 14"H x 12"D**
- **25# Lift Rating**

Order #: LUSB011

Large Vinyl Utility Lift Bucket

Large Vinyl bucket, preferred lift system in Hydraulic fluid environments.

- **150# Load Rating**
- **16" Diameter x 18" High**
- **20oz. Vinyl Body, 1000d Nylon Dry-Tight Secure Closure Flexible Lid**
- **1.5" Web Sling**
- **ABS Rigid Reinforced Bottom**
- **Steel Reinforced**

Order #: LUSB012

Maxtension Canvas Utility Lift Bucket

This lift system allows for the safe hoisting of long loads of 200#.

- **200# Load Rating**
- **10.5" Diameter x 54" High**
- **24oz. Canvas Body, 1000d Dry-Tight Secure Closure Flexible Lid**
- **ABS Rigid Reinforced Bottom**
- **1.5" Web Sling**

Order #: LUSB027

Large Personal Tool Carrier

A belt looped secure bag for large light bulbs or hand tools or lunch.

- **10# Lift Rating**
- **7" Diameter x 12" High**
- **1000d Nylon Body, 12oz Vinyl Bottom, Dri-Tight Flexible Closure Lid**
- **Belt Loops and D-Ring**
- **Available in Multiple Colors**

Order #: LUSB021

Extended Canvas Utility Bucket

This lift system allows for the safe hoisting of long loads up to 150#.

- **150# Lift Rating**
- **6" Diameter x 48" High**
- **24oz. Canvas Body, 1000d Nylon Body Dri-Tight Flexible Closure Lid**
- **1.5" Web Sling**
- **ABS Rigid Reinforced Bottom**
- **Steel Reinforced**

Order #: LUSB003

Large Vinyl Utility Lift Bucket

Vinyl bag preferred lift system in Hydraulic fluid environments.

- **125# Load Rating**
- **23.5"W x 24"H x 4"D**
- **20oz. Vinyl Body, 1000d Nylon Dry-Tight Secure Closure Flexible Lid**
- **2" Web Sling**
- **Lift and Grab Handles**

Order #: LUSB018

Tuff Bucket

TB-1050CL & 1050CV

This bucket is designed to lift tools up to 48" in length.

- **30oz. Canvas**
- **Reinforced 3.5 - 4.0oz. Leather Exterior Bottom (Item TB-1050CL)**
- **Reinforced 40oz. Vinyl Coated Polyester Exterior Bottom (Item TB-1050CV)**
- **Upright Load Rating - 150lbs.**
- **Closure Load Rating - 150lbs.**
- **Diameter - 10"**
- **Height - 50"**
- **MADE IN THE USA**

Order #: TB-1050 (leather bottom)
TB-1050CV (vinyl bottom)

TB-1322CVR

Making emergency gear quickly identifiable.

- **30oz. Canvas**
- **Reinforced 40oz. Vinyl Coated Polyester Exterior Bottom Rated to -30 ˚F**
- **Upright Load Rating - 150lbs.**
- **Closure Load Rating - 150lbs.**
- **Diameter - 13"**
- **Height - 22"**
- **MADE IN THE USA**

Order #: TB-1322CVR

TB-121222CL

A 12" square canvas bucket.

- **30oz. Canvas**
- **Reinforced 3.5 - 4.0oz. Leather Exterior Bottom**
- **Upright Load Rating - 150lbs.**
- **Closure Load Rating - 150lbs.**
- **Diameter - 12"**
- **Height - 22"**
- **MADE IN THE USA**

Order #: TB-121222CL

TB-1322CL & TB-1322CV

The first of its kind - A general purpose work bucket, formerly known as the Original Tuff Bucket.

- **30oz. Canvas**
- **Reinforced 3.5 - 4.0oz. Leather Exterior Bottom (Item TB-1322CL)**
- **Reinforced 40oz. Vinyl Coated Polyester Exterior Bottom, (Item TB-1322CV)**
- **Upright Load Rating - 150lbs.**
- **Closure Load Rating - 150lbs.**
- **Diameter - 13"**
- **Height - 22"**
- **MADE IN THE USA**

Order #: TB-1322 (leather bottom)
TB-1322PV (vinyl bottom)

TB-1622PV

An easy-to-clean bucket that is able to withstand harsh conditions

- **40 oz. Vinyl Coated Polyester with Reinforced Bottom, Rated to -30 ˚F**
- **Upright Load Rating - 200lbs.**
- **Closure Load Rating - 200lbs.**
- **Diameter - 16"**
- **Height - 22"**
- **MADE IN THE USA**

Order #: TB-1622PV

TB-202026PV

BIG. SQUARE. BUCKET.

- **40oz. Vinyl Coated Polyester with Reinforced Bottom, Rated to -30 ˚F**
- **Upright Load Rating - 250lbs.**
- **Closure Load Rating - 250lbs.**
- **Diameter - 20"**
- **Height - 26"**
- **MADE IN THE USA**

Order #: TB-202026PV

Why Purchase a New Instrument Calibration from TRANSCAT® ?

Why Calibrate?

The only way to ensure with 100% certainty that your new instrument is performing accurately within the manufacturer's specifications is to have it calibrated.

✓ Reduce Risk
- If your instrument is not providing accurate readings, you risk process failures, production delays, compromised safety, and product defects. Eliminate this risk by purchasing a Transcat Calibration with your new instrument.

✓ Meet Quality Standards
- With a new instrument calibration, you will have the documented accuracy that complies with your quality systems and regulatory requirements – from the day it arrives.

- You can count on Transcat to deliver quality calibrations you can trust. Transcat's quality systems are ISO 9001:2000 compliant, and we have earned the widest scope of ISO/IEC 17025 accreditation in the industries we serve.

✓ Save Time
- Why waste time sending your new instrument out for calibration after it arrives? Transcat can provide an accredited calibration for most of the products we sell, before they ship to you. Your new instrument will be ready to use as soon as you receive it!

Order a Transcat Calibration with Your New Instrument Purchase

For more information Call: **800.779.5289**

INDEX

Wind Energy Tool Lines

Power/Hand Tools

AEMC
Allen
Ampco
Anchor
Armstrong
Alemite
Bahco
Baldor
Bernzomatic
Bondhus
Bosch
Channel Lock
Chicago Pneumatic
C.K. Tools
Cooper Tools
Crescent
DeWalt
Dremel
Estwing
Eklind
Emuge
Gearwrench
Gedore
General
Goss
Greenlee
HK Porter
Ingersoll-Rand Irwin
JH Williams
Jobox
KD Tools
Klein Tools
Knipex
Leatherman
Lenco
Lincoln
Lisle
Magnolia
Makita
Mayhew
Milwaukee Tools
Morse Cutting Tools
Norton
Nupla
Olympia Tools
Ozat
Pferd
Plews
Proto
Rahsol
Rigid
Rothenberger
Snap-on
Stahlwille
Stanley
Ullman
Urrea
VBW
Victor
Wera
Wiha
Wright Tools
Weller
Weiler
Wilton
Wiss

Thermal Imaging

Flir
Fluke

Hydraulic Torque

Ellpress
Enerpac
HyTorc
Olaer
OTC
Plarad
Sweeney
TorcUp

Test and Measurement

Benning
Comark
Eilon Engineering
Extech
Fluke
GE Druck
Megger
Mitutoyo
Pelouze
Starrett
Tegam
Vibralign
Wika

Torque

CDI Torque
Norbar
Proto
Snap-On
Stahlwille
Sturtevant Richmont
Tonichi

Safety

Dupont
Eagle
Gojo
igloo
Jackson
Justrite
Kidde
Klein Tools
Last US Bag Company
Master Lock
Memphis
MSA
SafTcart
Salisbury
Tractel
Tuff Bucket

Maintenance

3M
Ames True Temper
Coleman Cable
CRC
Duracell
Jobox
Krylon
Loctite
LPS
Pelican
Preval
Rubbermaid
Rust-Oleum
Shop-Vac
Sprayon
WD-40
Western
Wooster Brush Co.

Transcat Wind Energy E-Newsletter